

# WLA 15



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SEEDING SHADE |

TAYLOR BURGESS, EMILY VAN GELDERN, & STEFANIE LOOMIS  
PENNDISIGN, UNIVERSITY OF PENNSYLVANIA

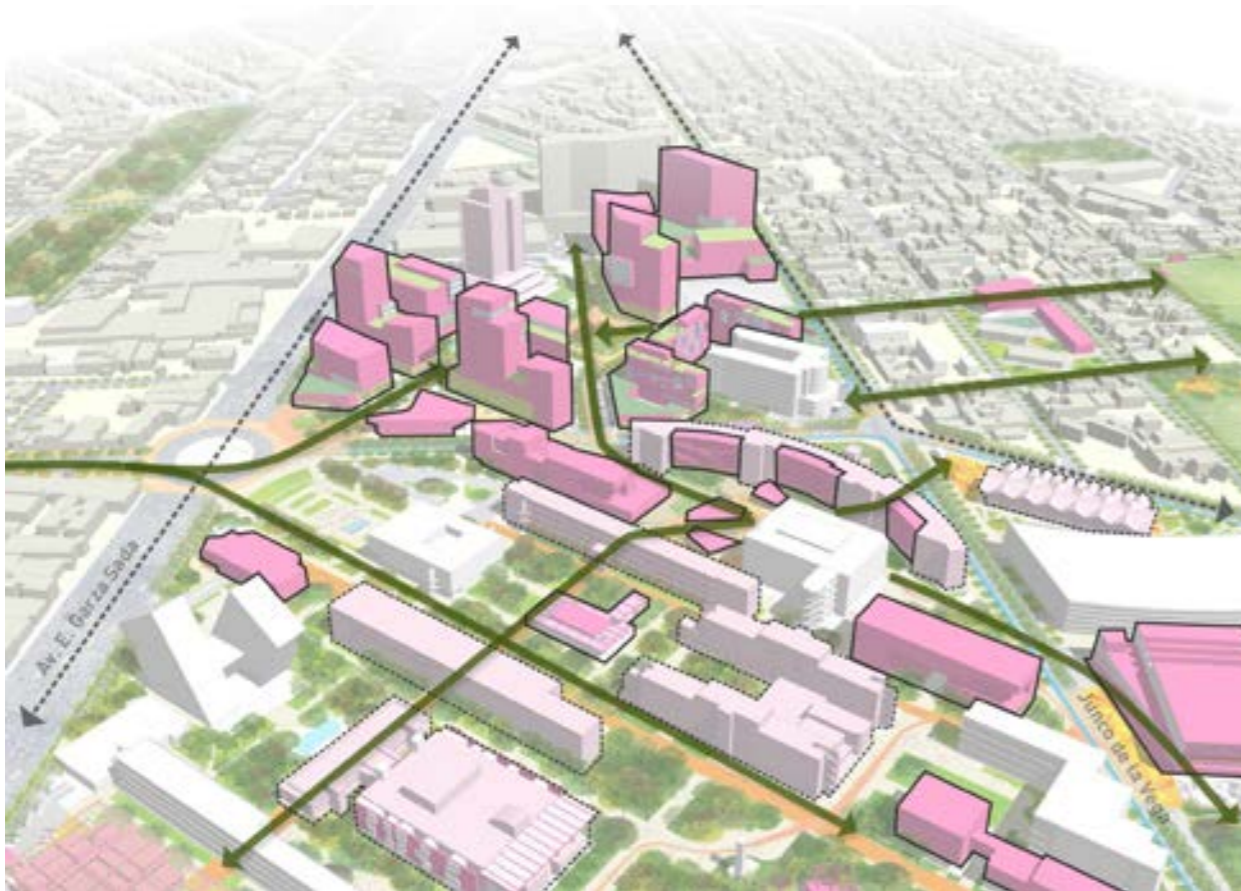


# REGENERACIÓN

SASAKI ASSOCIATES







## REGENERACIÓN | SASAKI ASSOCIATES

“Regeneración”, the new Master Plan for the Tec de Monterrey and the Distrito Tec captures our ambition to rethink the relationship of the institution to the complex surrounding urban setting; to make a new kind of contribution to the city of Monterrey, and to the country as a whole, and to rethink the nature of higher education in Mexico, in terms of learning and research. The resulting plan, now being implemented, is an inspiring vision born from a close partnership between the client and the consultant team. The integrated vision has been so powerful in its presentation as well as its conception, that the Board of Trustees immediately allocated US\$200 million to fund implementation of all highest priority projects outlined in the Master Plan. The University is now embarking on planning strategies for the remaining 30 national campuses in the Tecnológico de Monterrey system – all based on the lessons learned in Monterrey.

The Monterrey campus is the first planned university campus in Mexico. Designed in 1945, the framework was both rational and visionary, with meticulous attention to solar orientation, ventilation and circulation. While the essential elements of the plan still persist today, the 70-year-old campus was tired. Recent buildings had violated the powerful sustainable integrity of the original vision. There was no culture of planning. While the campus atmosphere was vibrant and energized, it was fighting physical realities. A massive but obsolete stadium was surrounded by acres of on-grade parking, occupying key land adjacent to the core. In surrounding neighborhoods, a sense of danger, neglect and vacancy was prevalent and the

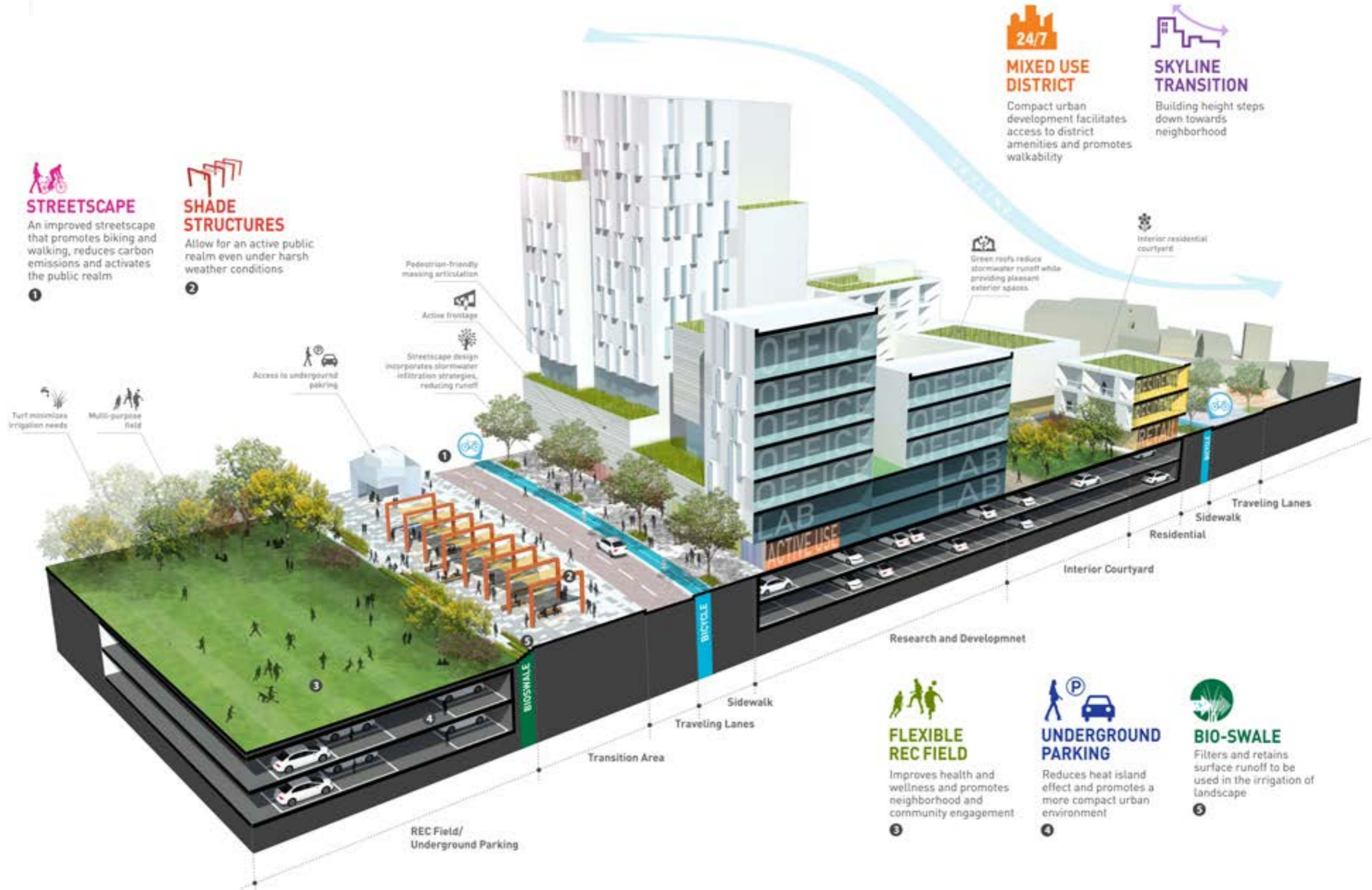
university struggled to attract students, faculty and staff to live in the district.

The challenge of the current master planning process is to capture the essence of the original plan, while extending it and adjusting it to reflect a new educational vision, and to set the stage for continued expansion of the Tec’s role in the Distrito Tec in Monterrey, in Mexico, and beyond. Our watchwords are transparency, connectivity, and engagement, and every detail of the plan is focused on these values.

The consultant team worked to create a unified learning environment encouraging project-based learning and inter-disciplinary collaboration, by modifying existing buildings and adding new structures to create a ground-breaking Faculty Student Commons complex at the heart of the campus, and two interdisciplinary “learning nodes.” Another goal has been to achieve better integration of student life and sports with academic life - a fusion of Mind, Body, and Spirit – and the plan has achieved this through careful relocation of key facilities and by strengthening connectivity. The campus becomes a single organism. We have also created two mixed-use districts adjacent to the core campus, to encourage faculty-supported research and development.

The proposed Exchange Building, a wholly new concept for a campus designed as the academic and social crossroads of the Tec, expresses its entrepreneurial spirit. The public realm of the university and the district is carefully connected and integrated through a series of pedestrian routes, public spaces and shared uses.









## REGENERACIÓN | SASAKI ASSOCIATES

The plan capitalizes on the benign Monterrey climate to create a fully inter-connected series of campus districts, and a clear message that the whole campus and Distrito is a learning factory. In each district, whether it be the central Faculty Student Commons complex, one of the inter-disciplinary Learning Nodes, one of the mixed-use R&D districts, or the park-like sweep of playing fields and sports facilities, there is a sense of connection to the larger campus and the Distrito. Buildings and landscape work together to generate a powerful sense of place.

We have worked to reintegrate the campus and the neighborhood. The plan lays the groundwork for a new kind of partnership, and the rebuilding of a major public park in the Distrito has already been authorized. Targeted investments in the public realm and in mobility strategies make the Distrito more walkable, livable and sustainable, drawing the university community back to its neighborhoods. The Tec's expanded role and commitment to its surroundings is already attracting new investment to the area, and will help reverse patterns of urban decline, returning Monterrey to its reputation as the safest city in Central America. The consultant engaged with the Tec community through multiple workshops and an online, dynamic survey and visualization tool of desired academic and administrative adjacencies (in which thousands of students, faculty and staff participated.) An active community engagement process initiated by the Tec ensured community buy-in, as did meetings with public officials.

The design team, as lead consultant, was the synthesizer, bringing together client, community, and sub-consultant inputs from every aspect of planning and design in a powerful contemporary process and result. The consultant team has become a visionary partner in rethinking Mexican approaches to higher education as a catalyst for social and economic urban regeneration, and translating the vision into physical reality.

### REGENERACIÓN

A VISION PLAN FOR THE DISTRITOTEC AND MONTERREY CAMPUS OF THE INSTITUTO TECNOLÓGICO DE MONTERREY

MONTERREY, MEXICO

Design Firm | Sasaki Associates (Urban Design, Architecture, Landscape Architecture, Strategic Planning)

Consultants | Philip Parsons Consulting, Mobility In Chain.

Images & Text Credit | Sasaki Associates





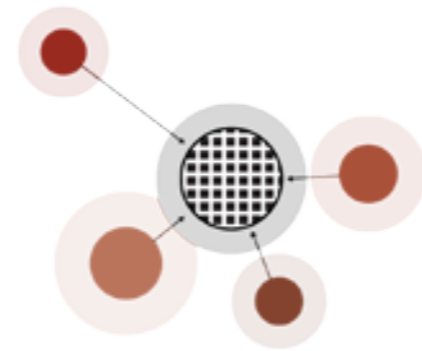
# EXPOST 2030

OPENFABRIC

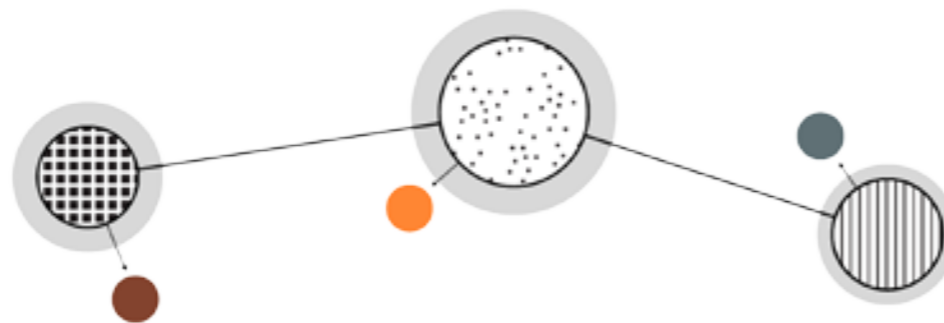


## EXPOST 2030: STRATEGY FOR THE MILAN 2015 EXPO LEGACY | OPENFABRIC

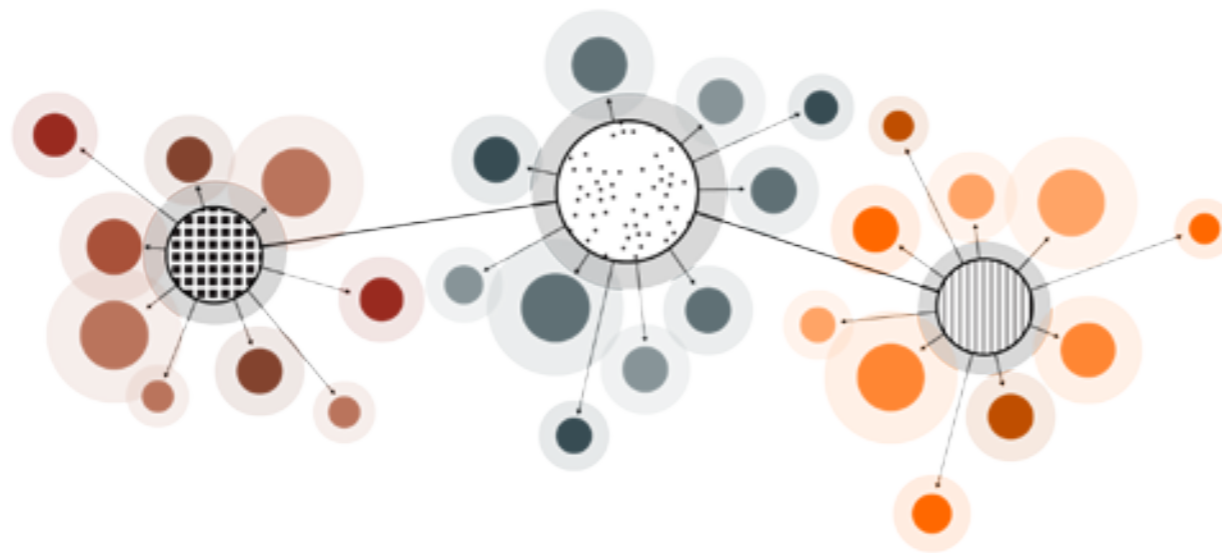
EXPO 2015



ECOSYSTEMS 2016



URBAN SCENARIOS 2030



Inverse Urbanism is a strategy that aims to address the post-expo without arbitrarily imposing the program; accepting the indeterminacy of the future of the area is essential to envision new scenarios. The goal is to create fields of potentials that like magnetic fields are able to attract quality investments and sustainable development.

A grid of paths, that follows the Expo structure of the Cardo and Decumano, overlaps with 5 defined areas where a variety of natural processes are activated. Those natural processes define through time 5 different ecosystems: forest ecosystem, wetland ecosystem, agriculture ecosystem, landfill ecosystem and vacant ecosystem.

The ecosystems and the grid weave a new urban fabric that doesn't impose itself over the uncertain future of the area but generate a multitude of possible scenarios, where the program is linked to the sustainable exploitation of ecosystem services.

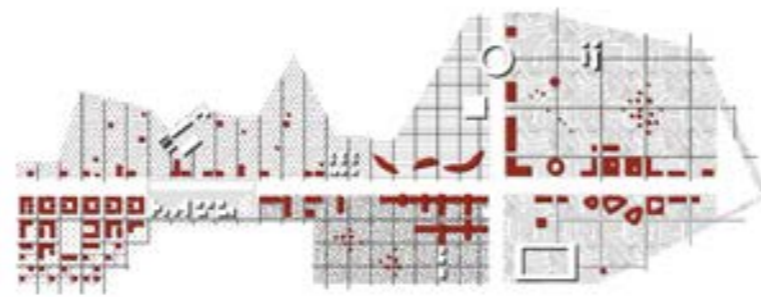
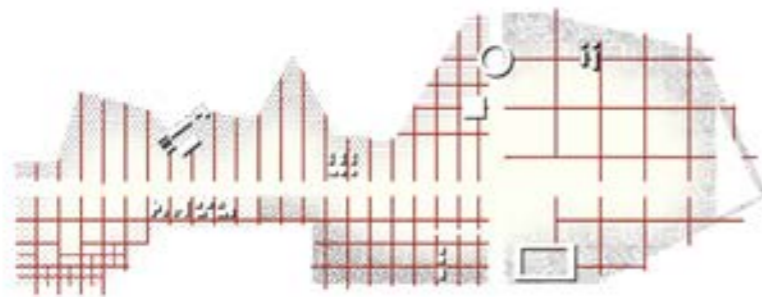
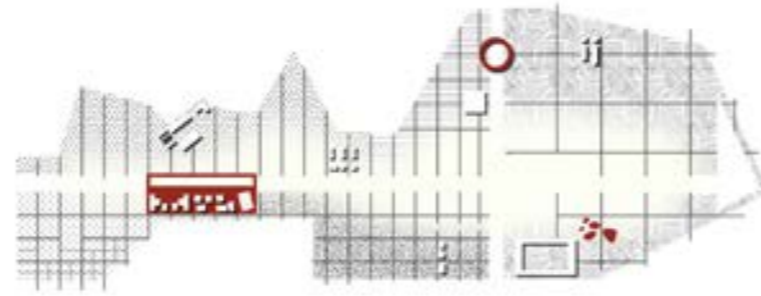
Inverse Urbanism propose a symbiotic city model where nature is not only seen as romantic neo-pastoral landscape nor as a mere ecological network but rather becomes integral part of a new system where city and nature are inseparably linked by mutual benefit and dependence.







# EXPOST 2030: STRATEGY FOR THE MILAN 2015 EXPO LEGACY | OPENFABRIC



EXPOST 2030: STRATEGY FOR THE MILAN 2015 EXPO LEGACY  
MILAN, ITALY

Designer | Openfabric  
Team | Francesco Garofalo, Barbara Costantino,  
Olivier Sobels  
Area | 110 ha  
Client | Area Expo , La Biennale di Venezia  
Design | March 2014 – April 2014  
Exhibit | Biennale di Venezia 2014 - Fundamentals

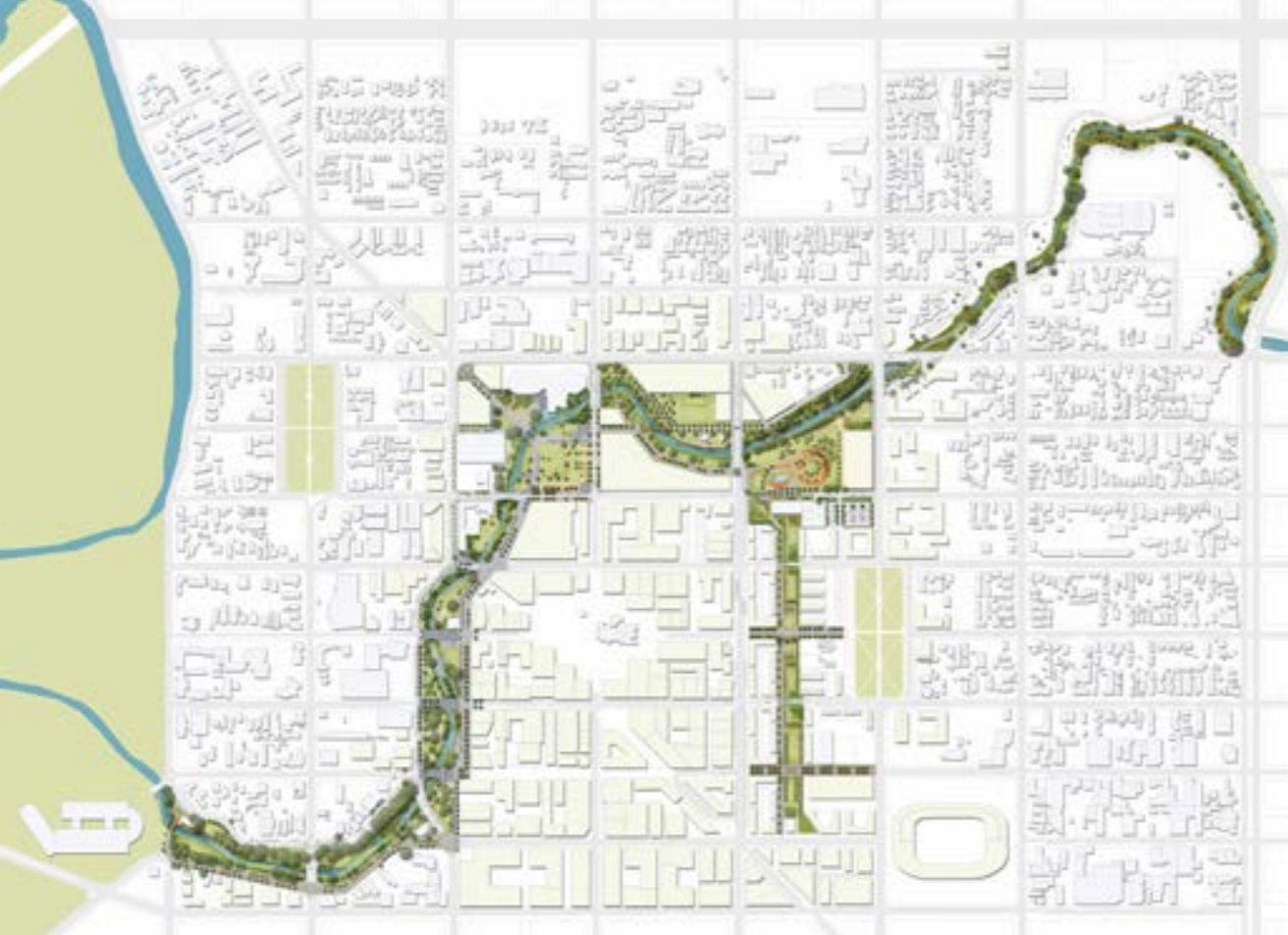




# AVON RIVER PRECINCT

OPUS, BDP, BOFFA MISKELL,  
LAND LAB & EOS





## AVON RIVER PRECINCT OPUS, BDP, BOFFA MISKELL, LAND LAB & EOS

Christchurch in New Zealand was badly damaged by a sequence of earthquakes including a major event in February 2011. The earthquake damaged over half the buildings in the city's central business district (CBD), destroyed thousands of residential properties and wrecked huge amounts of underground infrastructure. A government agency, The Canterbury Earthquake Recovery Authority, was established with a Cabinet Minister charged with overseeing the process of regeneration and renewal in partnership with Christchurch City Council and Te Runanga o Ngai Tahu who represent the local Maori community.

Following preparation of 'the Blueprint' a masterplan to guide the future development of the city, a consortium of Opus, BDP, Boffa Miskell, Land Lab and EOS were awarded the commission for design proposals for the regeneration of the Avon River Precinct. The overall recovery plan envisages a greener, more accessible city with a compact core, stronger built identity and a greater focus on people and nature. The Avon river covers a 3.2 kilometre stretch of the river corridor as it flows through the city centre and the regeneration strategy proposes that its sinuous path is used to define Christchurch's new river precinct. In addition to the river corridor, the study also developed proposals for the North and East Frames, badly damaged city blocks with connections to the water.

The project will seek to restore the health of the river and create a habitat to encourage the return of native birds and aquatic life to the central city. The rejuvenated landscape will represent a blend of the best of exotic and native planting and reflect

the weaving together of the city's cultures. It will help define the character and qualities of the city's external environment and create attractive settings for new buildings, acting as a catalyst for future development.

The area will be accessible for all with a pedestrian promenade and separate cycleway running the full length of the Precinct. The promenade will have a consistent character, though it will connect a variety of places and spaces that will each have their own distinct flavour. Boardwalks and terracing will allow easy access to the river and feature lighting will improve safety in the evenings and enhance the natural beauty of the central city. The Terraces will be a major feature of the promenade, and their proximity to the leisure and retail quarters of the city will see the area become the prime location for outdoor eating, drinking and recreation. New waterside stops for punts, historic sculptures and contemporary art installations will add further interest to the promenade.

The first stage of the project, called Watermark, opened in September 2013. Watermark is an exhibition site for the precinct, and spans the area on the true left bank of the river from the Antigua boatsheds to the Montreal Street Bridge. It features significant ecological works, a boardwalk, seating, new plantings and advanced LED lighting.

The team is working to a very tight programme. Concept and Developed Design stages were largely completed in 2013 and detailed design packages are now underway. Construction commenced in the middle of 2014 and will run through the remainder of the year concluding in late 2015.





AVON RIVER PRECINCT | OPUS, BDP, BOFFA MISKELL, LAND LAB & EOS





## AVON RIVER PRECINCT OPUS, BDP, BOFFA MISKELL, LAND LAB & EOS



### AVON RIVER PRECINCT FRAMEWORK CHRISTCHURCH, NEW ZEALAND

Engineering, Landscape architecture Urban  
Planning | Opus International Consulting  
Landscape architecture, Urban Design | BDP  
Landscape architecture | Boffa Miskell  
Landscape architecture | Land Lab  
Ecology | EOS

Client | CERA (Canterbury Earthquake  
Recovery Authority)  
Image and Text Credits | CERA, OPUS, BDP





# PORT OF LOS ANGELES

AECOM



## PORT OF LOS ANGELES | AECOM



Historically, residents of the San Pedro community have been separated from the Los Angeles waterfront by industrial land uses connected with the largest port in the United States. The Port of Los Angeles is now changing that with the implementation of a master plan that reconfigures seven miles of waterfront in a redevelopment and public space vision called “Bridge to Breakwater.”

The project links an existing cruise ship terminal, an expanding Cabrillo Marina, a redeveloped hotel and conference center and maritime museum, the historic battleship USS Iowa, and the future regeneration of the Ports O’Call Seaport with a series of distinctly themed public spaces that evoke history and heritage, encourage walking and cycling, and invite people to linger in serene surroundings within sight of the active port. Re-centering San Pedro’s downtown at the waterfront and catalyzing significant new investment, this is one of the most significant urban transformation projects in the history of Los Angeles and the largest waterfront development underway in the U.S.

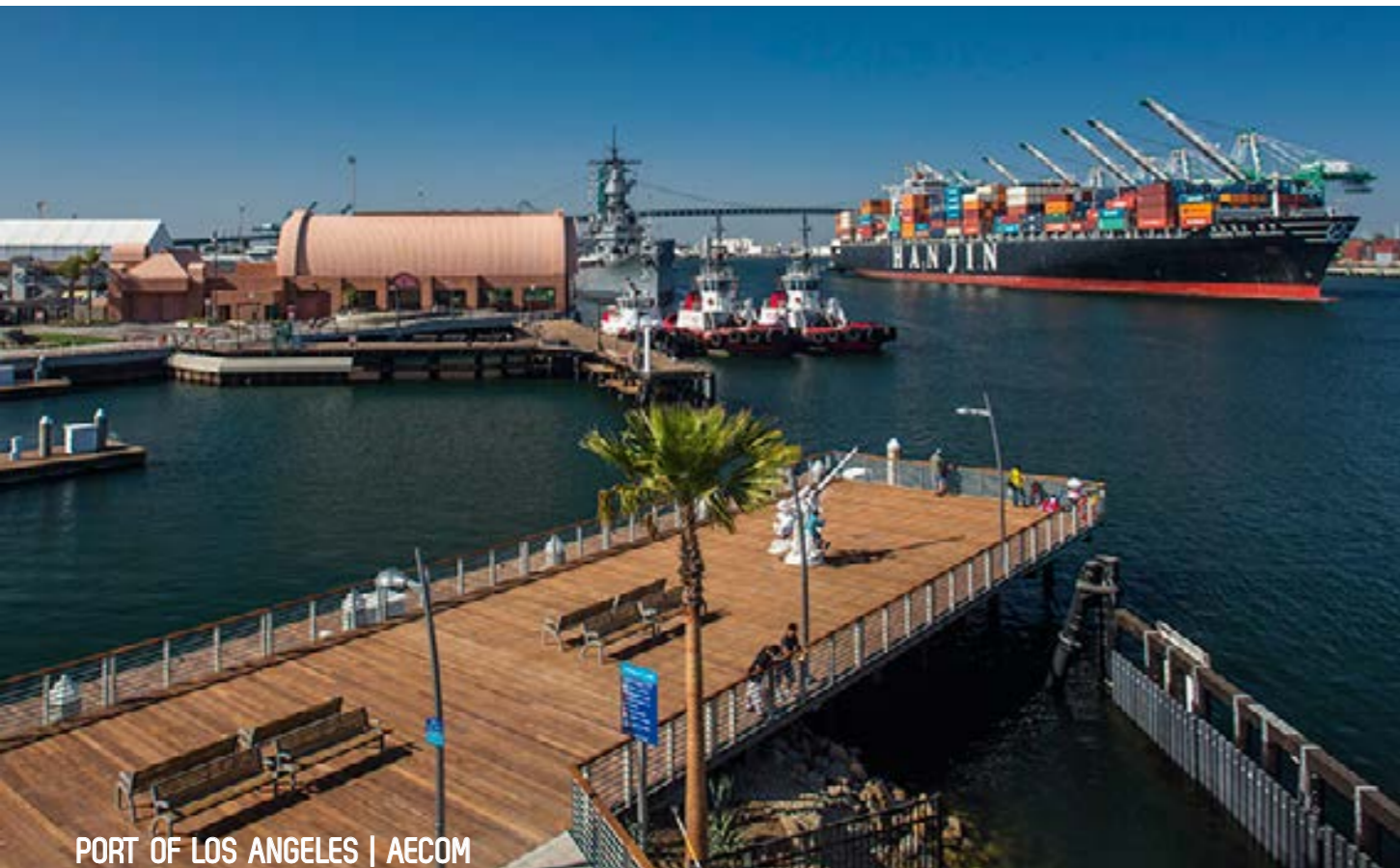
The port and project team are implementing the master plan in a series of phases, accompanied by an extensive public participation process in which the community has voiced its strong desire to be reconnected with the water. First to open was the Cruise Ship Promenade in 2004, a stretch of overlook that offers close views of the ships departing the World Cruise Center, along with a rich, playful environment that recalls the heyday of giant cruise ships in the early nineteenth century. The “Recreation Deck” and “Bon Voyage Plaza” feature actual decks made of ipe wood, along with deck chairs, chess tables and a bocce ball court. Interpretive

signage provides an educational component. Custom “angel lights” establish a festive mood during the evening. Individualized art tiles place the community’s stamp on the place.

Following in 2008, the Gateway Plaza greets visitors with a grand fountain rising from a black granite pool backed by a row of Canary Island palms. During the day, a walk down the path that bisects the pool offers cooling mist. At night a water and light show timed to music delights crowds of spectators. A 70-foot-wide pedestrian parkway runs from the Gateway Plaza, accommodating walking, cycling, sitting, as well as clusters of trees, gardens, and larger spaces for public events. The “Story Rope” runs along the parkway, engraved with episodes of the waterfront’s history.

The Cabrillo Way Marina site, completed in 2011, consists of 41 acres of land and 39 acres of water. With the old marina disused and increasingly presenting a safety hazard, it was replaced by a new floating dock system that accommodates 700 boat slips. Marine-related mixed-use development will follow. The site features a multi-use plaza connected by a 1,200-foot-long trellis to an arrival court at the site’s primary vehicular entrance, a park-like landform, and a 30-50 feet promenade along the water, with new gangway “pavilions” marking the entries to the marina’s jetties and framing vistas to the ocean and hills of Palos Verdes beyond. Materials were chosen for maximum durability in a waterfront environment and to tie in with the nautical-inspired elements used in the other areas of the waterfront. Drought-tolerant planting borders the promenade, and groves of date palms punctuate the vehicular connections. A sprinkling of fan palms marks an area of open









## PORT OF LOS ANGELES | AECOM

space at the end of the trellis and ties visually to the landscape of neighboring San Pedro.

The Downtown Harbor is the centerpiece of the master plan, connecting San Pedro's main street to the water, and opened most recently, in 2014. Between the Ports O'Call and the Cruise Center, this piece of the project has created a new harbor inlet for vessels to dock by reversing the landfill process and providing 1.6 new acres of water. A new town square and 700 linear feet of promenade surround the new inlet. The landscape incorporates historic marine artifacts, the Red Car Trolley line, and installations by local artist Harold Greene and international artist Marc Dion.

As the master plan continues to become reality, residents of San Pedro enjoy more and more of a waterfront that was once off limits and is now driving economic activity and enhancing quality of life.







## PORT OF LOS ANGELES | AECOM



PORT OF LOS ANGELES  
LOS ANGELES, USA

Landscape Architecture | AECOM  
Urban design | AECOM  
Electrical | AECOM  
Civil | AECOM  
Architecture | Tetra  
Coastal Engineering | Moffat and Nichol  
Marina | Blue Water Design Group  
Lighting | Lighting Design Alliance  
Environmental Graphics | Selbert Perkins  
Artist | Marc Dion, Harold Greene

Image Credit | © AECOM photo by David Lloyd  
Text | Jake Herson



# THE GOODS LINE

ASPECT STUDIOS





## THE GOODS LINE | ASPECT STUDIOS



The Goods Line is a unique new public space designed by ASPECT Studios, in collaboration with CHROFI, for the Sydney Harbour Foreshore Authority (SHFA). Located in Ultimo in inner Sydney, the site is a former historic rail line which is now bound by a unique concentration of Sydney's key cultural, educational, and media institutions including UTS, The Powerhouse Museum, Sydney TAFE, The ABC, and the City of Sydney Council.

The Goods Line celebrates the significant history of the site which forms part of the heritage Darling Harbour Rail Corridor – one of New South Wales' first railways, opened in 1855, creating an overlay which permeates much of the design thinking. An over-arching design narrative of repurposing its industrial fabric reveals how the site has moved from a place with a rich industrial heritage to one of social interactions, creative industries and the promotion of innovation.

The 500 metre long elevated civic space will not only transform this industrial relic on the city's Western fringe into an innovative example of urban green space for the Sydney suburb of Ultimo, but it will also have a transformative social and environmental role in the precinct by creating a new platform for public engagement and will feature a series of elevated green spaces or platforms. Currently the many buildings which line the rail corridor turn their back on the space. The Goods Line provides the opportunity for these buildings and their educational and cultural content to extend out into this new public domain and create new active public addresses. The Goods Line also operates at a strategic scale by creating important new equitable links for pedestrians and cyclists moving from Central Station through to Darling Harbour and the

NSW Government's Exhibition and Convention Centre development which is currently under construction.

Beyond its connectivity function, The Goods Line responds to a shared desire to existing key stakeholders.

The design promotes inclusiveness and openness by creating a new type of active green space with a high degree of 'social infrastructure'. The new public space has been designed to be used for a variety of public entertainment, recreation, and study activities, connecting more than 80,000 tertiary students, locals and visitors to the iconic Darling Harbour area. Designed as a highly functional space, the area will be completely WIFI enabled to facilitate external working, and is suited to pop-up events and festivals, injecting a sense of community into a previously disused urban expanse.

The Goods Line is conceived of as being a new kind of civic space and 'public campus' which blurs the boundaries of land ownership along its length, and facilitates strong urban, stakeholder and community connections beyond its site boundary.

The project involves a whole of government planning solution, bringing together both local and state government organisations as well as private institutions and stakeholders. The aim is that The Goods Line will be a model of ongoing participatory design and governance by the agencies and authorities which have been invested in its development. As such, a site specific governance model has been developed for The Goods Line to ensure that the commitment to ongoing activation is an embedded and









## THE GOODS LINE | ASPECT STUDIOS

enduring part of the project and providing a best-practice example of multi-agency management.

The Goods Line is anchored by a primary movement spine with this key axis promoting porosity, connectivity and openness of movement across the pedestrian network. A sequence of experiential spaces along its length allow for a series of platforms for event overlays to occur within, creating a spatial richness to the project as a whole. Through this, the design develops its strong 'social infrastructure' creating a range of opportunities for people to come together and inhabit/occupy and use the space. Every effort has been made to create a human-centred design outcome which provides a range of opportunities for people to inhabit/occupy and use the space. A variety of seating opportunities cater for the different user groups and event modes, and are located throughout The Goods Line in the form of raised lawns, seating edges, bleachers and bench seats. Bespoke concrete formal seating and fixtures continue the industrial overlay, with the universal forms providing unique ways to reveal the site's history.

The revitalisation is expressed via a singular move. The laying of a new datum, a precast concrete 'figure' onto the existing railway corridor, articulates the site's history. These modular precast concrete panels form the paving, edges, steps, benches and seating as an integrated prefabricated piece. They are a repurposing of an industrial element to social infrastructure using digital fabrication process. A corridor once energised by the movement of industrial goods will be re-energised with people and the exchange of ideas, marking the transformation from industrial infrastructure to social infrastructure.





## THE GOODS LINE | ASPECT STUDIOS

Throughout the project, the industrial character of the site is celebrated, with an aesthetic created through a consistent form and language permeating all elements of the design and providing a strong sense of place.

THE GOODS LINE  
ULTIMO, SYDNEY NSW, AUSTRALIA

Project Lead and Landscape Architect | ASPECT Studios  
Design Partner and Architect | CHROFI  
Team | ASPECT Studios, CHROFI, ACOR, AR-MA, Deuce Design, GML, JBA, Lighting Art + Science  
Renders | ASPECT Studios, CHROFI, Doug and Wolf  
Drawings | ASPECT Studios, CHROFI  
Full attribution for the project | ASPECT Studios with CHROFI for the Sydney Harbour Foreshore Authority  
Client | Sydney Harbour Foreshore Authority



# SERP & MOLOT

MVRDV & LAB





## SERP & MOLOT | MVRDV & LAB



Built in 1884, the Serp & Molot steel factory in Moscow was a stronghold during the Russian revolution. In the past decades it fell into disrepair – unused and overgrown with plants. How could the remarkable history of the steel factory be combined with the demands for the creation of a new, attractive, modern urban neighbourhood in the centre of the Russian Capital?

MVRDV's winning scheme builds upon the current layout and identity of the site. By taking the characteristic factory streets, buildings and objects as starting points, a new layer is added to the neighbourhood. Historical structures such as large chimneys and pipes are preserved and other structures are integrated into new buildings. Large factory halls are replaced by urban blocks that follow the footprint of the old factory with additional green courtyards. By partitioning the blocks further into segments and applying different densities the plan diversifies the area. Ground floor spaces are reserved for public facilities and retail. This leads to a vivid, green, complex and highly dense urban plan which strongly respects the character of the site.

An existing factory transport ring will be repaired and become part of a park that will form a three-dimensional spine for the new neighbourhood. This public urban space will house playgrounds, sports facilities, open air markets and pavilions. Schools and day care centres are connected to this ring park. On top of the transport ring a sky walk can be made in between the tops of the trees, overlooking the surrounding neighbourhood.

Next to housing, offices and retail the new neighbourhood will also include schools and

a local hospital. The urban quarter will be developed in phases and create space for 19.000 inhabitants and 16.000 work spaces. It is envisioned to be completed in 2021. The total investment is estimated at 180 billion Rouble.

The Serp & Molot competition was organised in two rounds. Last November the participants of the second round were chosen: LDA Design (UK), Ateliers Lion Associés (France), Mega Project (Russia), De Architecten Cie. (Netherlands) and MVRDV (Netherlands). The winner was selected by an international jury consisting of leading experts in the fields of urban planning, infrastructure and landscaping from Russia, Denmark, the USA, France, Spain, Japan and Germany.

For this competition MVRDV lead a consortium consisting of Proektus (Moscow) and Laplab (Rotterdam). MVRDV has worked on a number of urban regeneration schemes in which the history of the place is translated into a contemporary plan. Aspects of the traditional European city such as green public spaces and intimate streets are also introduced in MVRDV's other projects such as ZAC Bastide Niel in Bordeaux and a port transformation in Caen, Normandy.













## SERP & MOLOT | MVRDV & LAB



SERP & MOLOT | MVRDV & LAB  
MOSCOW, RUSSIA

Design Team | Winy Maas, Jacob van Rijs and  
Nathalie de Vries with  
Jeroen Zuidegeest, Klaas Hofman, Mick van  
Gemert, Johannes Pilz, Piya Limpiti

Partners |  
Landscape and Urban Design | LAB, Rotterdam,  
The Netherlands  
Urban Design & Planning | Am Proektus,  
Moscow, Russia  
Engineering | PROMOS, Moscow, Russia

Location : Moscow, Russia  
Year : 2014  
Client : JSC Don Stroy Invest.



# HANGZHOU NEW DISTRICT

UNSTUDIO





As with many cities in China, Hangzhou is undergoing rapid urban change. Whilst the city centre has been beautifully developed around the West Lake area, opportunities for industry and commerce have shifted the city's expansion towards the riverfront area in the South and towards the East, where the Hangzhou New District is located.

Hangzhou has long been known for its lake district and green tea plantations. UNStudio's approach to the masterplan for the New District therefore embraces Hangzhou's longstanding natural and fertile identity whilst connecting the Old City Centre with the new Central Business District.

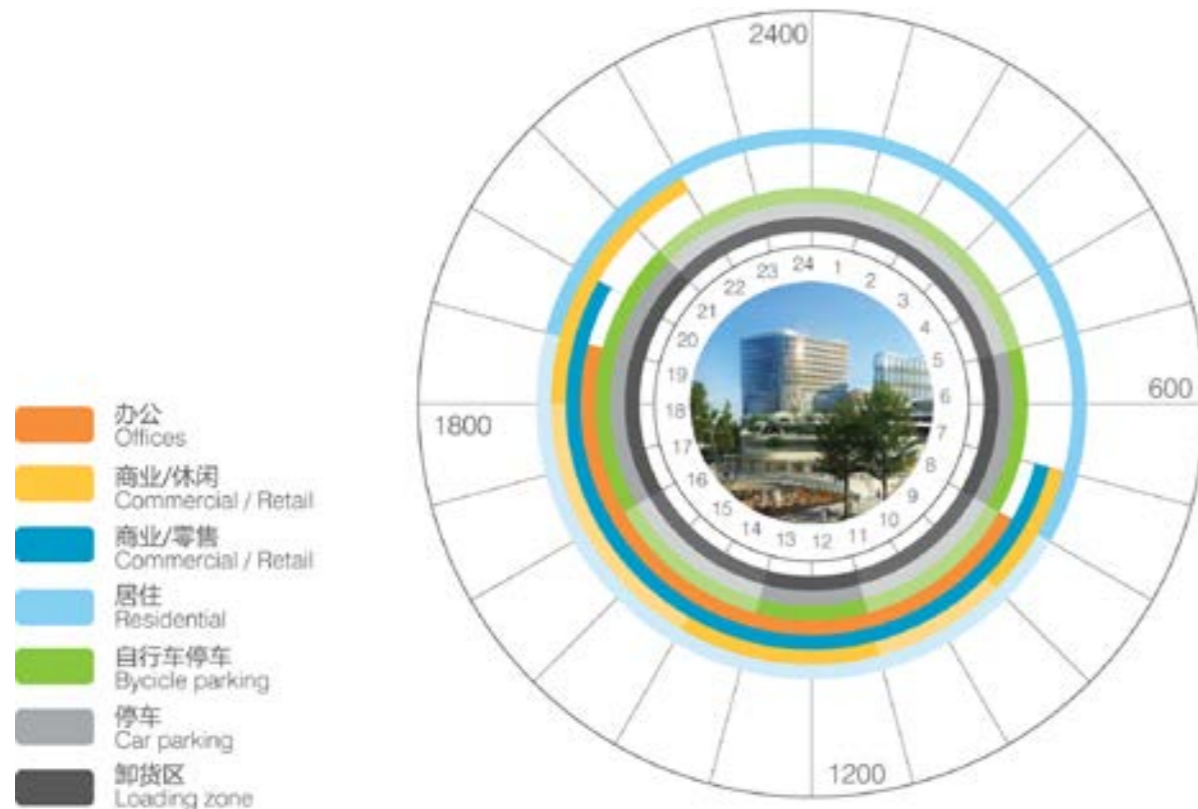
Through the addition of a new and important railway hub, a new urban centrality is generated. By means of green corridors, water corridors, loose plantation structure, green roofs, urban cooling and warming strategy, green courtyards and sustainable living, the New District masterplan aims to bring Hangzhou to the forefront as the most advanced and sustainable urban plan of its scale.

A comprehensive analysis of programme and site specific organisational principles has been used to rationalise connections with larger networks and integrate diverse parameters into a coherent design solution. The design aims to provide a sustainable approach in terms of ecology, economy and social cohesion by introducing a variety of public and commercial spaces which are strongly linked to the natural landscape. Within this new development both commercial development and amenable social locations reinforce each other through interconnection.

The design strategy for the Hangzhou New District pursues the idea of creating a green and lively pedestrian artery (above and below ground) as a means of connecting the main transportation hubs, main station and the metro station with the cultural attraction of the new Ecological National History Museum. The green pedestrian artery passes through a varied retail configuration; from restaurants, high-end retail outlets and public activities to the more local configurations of grocery stores and snack bars. The green design strategy aims to create a synergy between the environment and its users by offering spaces where high green density becomes a social and economical indicator for quality of life.

Heat Islands (cooling and warming wind effect) Metropolitan zones are significantly warmer than their surrounding rural areas, mostly due to the extensive use of heat retaining materials in cities and the surplus heat generated by energy usage. The design for the Hangzhou New District aims to harvest this surplus energy by inducing air circulation within the pedestrian zones and thereby increasing user comfort. Wind corridors in low density areas will allow for better wind penetration, whilst the grouping of buildings reduces direct solar exposure. The addition of greenery further improves cooling effects for the central building complex. Temperature differences from the surroundings forces air circulation during periods of low wind, thereby reducing heat levels.

The structure of the business district pedestrian areas is optimised for wind penetration. The orientation and geometry of the buildings allows increased wind ingress in the summer (when





# HANGZHOU NEW DISTRICT | UNSTUDIO



wind speed might reach 4m/s, removing heat from the area) and reduces wind acceleration in winter (averaged wind speed will be less than 2m/s), providing good ventilation without increasing the wind chill factor. The central axis geometry creates a fluctuating wind corridor, where in the summer air can move from one side to another, passing through the greenery designed on the site and increasing water evaporation from the plants, the river and the basins. Courtyards within the plots are designed to maintain a balance between wind penetration and sun shading, creating comfortable areas with lower wind speeds.

## Green Corridors

The structure of the masterplan engages with the heat island effect through green corridors. The most relevant green corridor is the central axis which absorbs most of the heat exchange and contributes actively in the summer months by cooling through a central water stream. In the winter it warms by means of the seasonal changes of the plantation, which allows for more sunrays to filter through the trees. Secondary green corridors run transversal to the main axis and link both the green boulevards and the water to a riverfront experience, the green pedestrian walkways and retail functions.

## Programme density and distribution

A vast portion of the underground areas have been strategically dedicated to commercial use due to climatic comfort. A woven connectivity between the ground and underground retail level is therefore proposed.

The original density distribution scheme has

been altered to improve functioning of the area and enhance its capacity to accommodate a wide variety of users. The sites adjacent to the railway station have been equipped with larger commercial areas that will be accessible to travelers within a five minute walk from the station plaza. The park formerly located in this zone will be redistributed along the central axis, creating a landscape connector between various commercial zones. Density of the blocks located in proximity to the subway station has been reduced to avoid congestion of traffic and collisions of incompatible user groups. Removed commercial, office and high quality residential programmes have been redistributed within the business strip on the other side of the axis, thereby creating a more intimate and comfortable working and living environment. The cultural site has been enriched with parking facilities for servicing a large number of expected visitors. Tall buildings flanking the museum of ecology will house auxiliary cultural programmes and create orientation points within the view corridors.

An 'Entertainment zone', adjacent to the train station, is envisioned as an area of commercial activity: a place for socialising, eating out and enjoying an active lifestyle. It serves short term visitors arriving from the public transport hubs as well as local inhabitants. Further commercial programme has been introduced into the site adjacent to the railway station, thereby creating a lively gateway zone for the central axis. Adjacent to this, the 'Shopping zone', is directly accessible from the train station, the public parking, the bus station, the subway exit and the PRT. This area will house a range of retail functions, creating a high quality shopping district of city wide











## HANGZHOU NEW DISTRICT | UNSTUDIO

importance. The final zone expands the cultural programme of the central Creative Culture Zone to reach the extremities of the complex. Cultural programmes of various types will populate this region centered around the museum of ecology, such as cinemas, theatres, convention centres, art galleries and showrooms.

Each of the three zones changes in character while crossing the site: from high intensity and fast within the transit belt, through slow and leisurely in proximity of the central axis, to intimate and luxurious in the business strip. Housing and commercial offices are distributed symmetrically throughout the site in order to avoid mono-functional, isolated and lifeless areas. This solution secures intense, 24-hour use of the whole complex as well as each one of the blocks, stimulating activity and increasing security of investment

### Landscape strategy

Stretched between the railway station and the cultural ecological center as an important landmark lies the green-blue axis. This so called 'urban valley' is characterised by its lush green environment and its relationship to water. Along the axis an interweaving of logistics, connections, view points, leisure elements and points of rest occurs. This is expressed in a complex intertwining of green and water-related elements with solid features. The complex geometry of the inner and outer world always directs the visitor to the main guideline; the green-blue axis is an important structural element with a clear orientation.

Water reflects sunlight into shaded areas (provided by buildings), while trees provide a filtered atmosphere and shade. Water and trees also provide cooling. Above all, a visual connection should always be present between the existing water (river) and the incorporated water (green-blue axis).

### MASTER PLAN HANGZHOU NEW DISTRICT, HANGZHOU, CHINA

#### Credits

UNStudio Team

Ben van Berkel, Caroline Bos, Gerard Loozekoot and Filippo Lodi, Marcin Koltunski and Jae Young Lee, Colette Perras, Valerie Tam, Zhuang Zahng, Lingxiao Zhang, Ramon van der Heijden, Ren Yee, Bartek Winniki, Tomas Mokry

#### Advisors

Landscape | Or/else, Mark van der Bij  
Engineering | Arup Shanghai, Frederik Wong  
Renderings and Visualizations | UNStudio and IDF Global  
Model | AMOD China

Client | Hangzhou Railway Investment Co., Ltd.

Image & Text | UNStudio



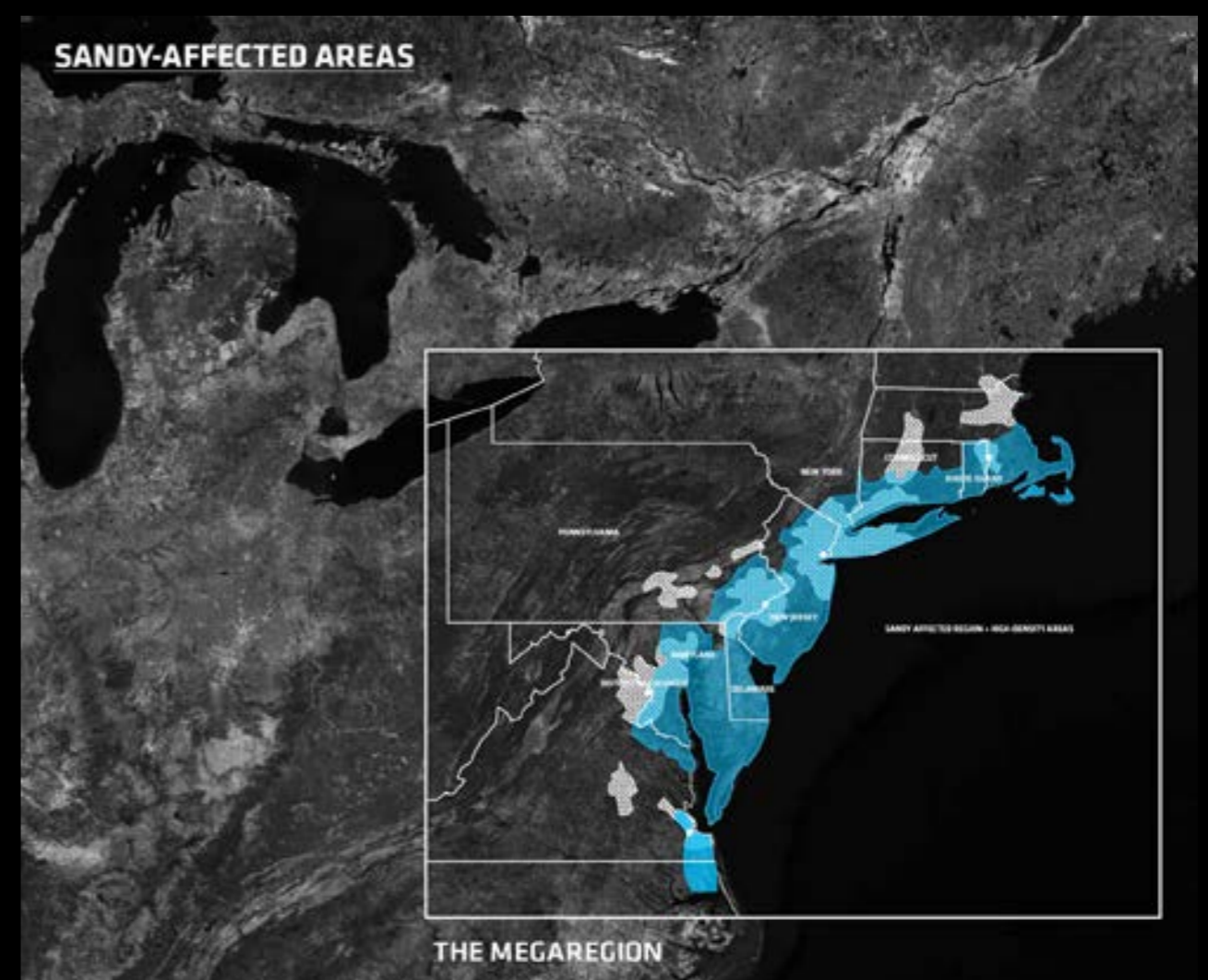
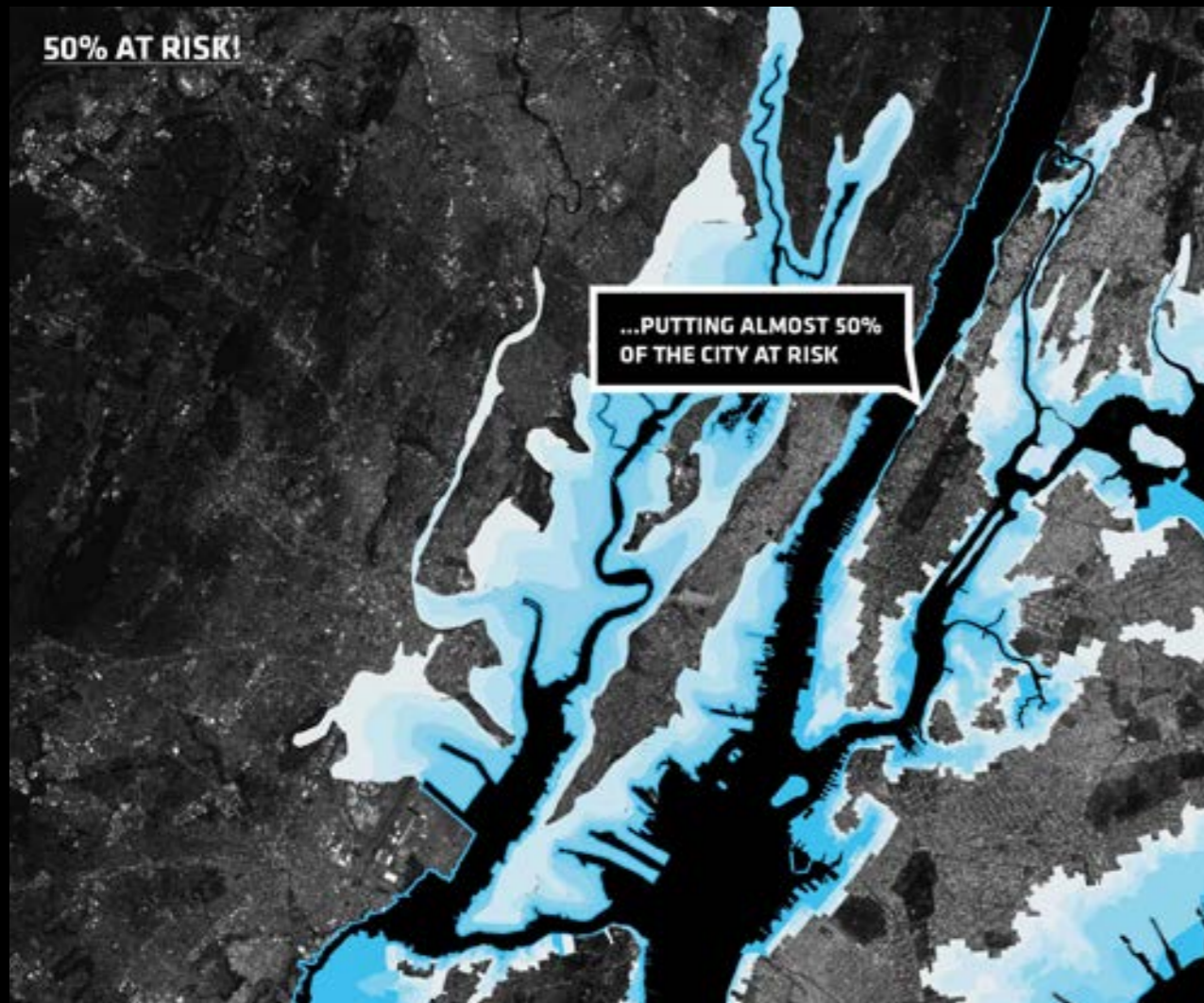


**HUD**  
BIG



# HUD | BIG

Rebuild by Design, an initiative of the Hurricane Sandy Rebuilding Task Force and HUD, is aimed at addressing structural and environmental vulnerabilities that Hurricane Sandy exposed in communities throughout the region and developing fundable solutions to better protect residents from future climate events. We propose a protective system around Manhattan from West 54th street south to The Battery and up to East 40th street: 8 continuous miles of low-lying geography that comprise an incredibly dense, vibrant, and vulnerable urban area. US infrastructure traditionally has not been civic or accessible, but rather, it has been imposed on our cities at large scale with sometimes terrible consequences for the urban experience. The multivalent 'U' consists of multiple but linked design opportunities; each on different scales of time, size and investment; each local neighborhood tailoring its own set of programs, functions, and opportunities. Small, relatively simple projects maintain the resiliency investment momentum post-Sandy, while setting in motion the longer-term solutions that will be necessary in the future.







+



**RESILIENCY INFRASTRUCTURE**

**PEOPLE!**







 **THE BRIDGING BERM**  
EXISTING CONDITION



 **THE BRIDGING BERM**  
LONG TERM VISION







**TWO BRIDGES - UNDER THE FDR**  
EXISTING CONDITIONS



**THE BIG BENCH**  
A PLATFORM FOR TAI-CHI!





# HUD | BIG

HUD

LOWER MANHATTAN, NEW YORK, USA

THE BIG U - REBUILD BY DESIGN

Size in m2: 1000000

Client: U.S. Department of Housing and Urban Development

Collaborators | ONE Architecture, Starr Whitehouse, James Lima Planning + Development, Level Infrastructure, Buro Hap pold, Arcadis, Green Shield Ecology, AEA Consulting, Project Projects, School of Constructed Environments at Parsons The New School for Design.

Project Team |

Partner in Charge | Bjarke Ingels, Kai-Uwe Bergmann, Thomas Christofferson

Project Leader | Jeremy Alain Siegel, Daniel Kidd

Team | Kurt Nieminen, Dammy Lee, Yifu Sun, Jack Lipson, David Spittler, Blake Smith, David Dottelonde, Ken Amoah, Choonghyo Lee, Wesley Chiang, Daisy Zhong, Hector Garcia, Riccardo de Palma, Yaziel Juarbe, Taylor Hewett





# LIUPANSHUI MINGHU WETLAND PARK

TURENSCAPE





# LIUPANSHUI MINGHU WETLAND PARK | TURENSCAPE



Through a series of regenerative design techniques, particularly measures to slow down the flow of storm-water, a channelized concrete river and a deteriorated peri-urban site have been transformed into a nationally celebrated wetland park that functions as a major part of the city-wide ecological infrastructure planned to provide multiple ecosystem services, including storm-water management, water cleansing, and recovery of native habitats, as well as a creation of a cherished public space for gathering and aesthetic enjoyment.

## Objectives and Challenges

Liupanshui, known for its cool plateau climate, is an industrial city built in mid 1960s in a valley surrounded by limestone hills, with the River Shuichenghe running through it. With an area of 60 square kilometers, the city is densely inhabited by a population of 0.6 million. As an element of a major campaign of environmental improvement the city government commissioned the landscape architect to develop a holistic strategy to address multiple serious problems including: 1) Water pollution: As one of the major heavy industrial cities built during the cold war period, Liupanshui has been dominated by coal, steel and cement industries. Consequently, the citizens have suffered with the resulting by air and water pollution for a long time. From the industrial chimneys, decades of air pollution deposits fell onto the surrounding slopes and washed into the river along with the storm-water that also carries the chemical fertilizer runoffs from the farm land on the slopes and sewage from the scattered settlements on the slope; 2) Flood and storm-water inundation: Situated in the valley, the city is subject to floods and storm-water inundation

during the monsoon season, but also severe drought in the dry season due to the porous limestone geology; 3) Recovery of the mother river: Channelization of the River Shuichenghe was carried out in the 1970s as a solution to inundation and flooding. The channel transmitted the storm-water from upstream but caused even more severe flooding problems downstream. Hence, the former meandering mother river became an ugly concrete, lifeless ditch and its capacity for flood retention and environmental remediation was totally lost; 3) Creation of public space: Recreation and green spaces are inadequate due to the population explosion in the city. The water system that was once a blessing to the city has become a deserted backyard, garbage dump and the dangerous backside of the city. Pedestrian access to a restored green space system is badly needed in such a densely populated community.

The strategy is to slow the flow of water from the hillside slopes and create a water-based ecological infrastructure that will retain and remediate the storm-water, and make water the active agent in regenerating a healthy ecosystem to provide natural and cultural services that transform the industrial city into a livable human habitat.

## Design Strategy

The submitted Liupanshui Minghu Wetland Park project, 90 hectares (222 acres) in size, is the first phase and a major part of the comprehensive ecological infrastructure project planned for the city by the landscape architect.

For the overall ecological infrastructure, the landscape architect focused both on the



Before



After



Before



After



## LIUPANSHUI MINGHU WETLAND PARK | TURENSCAPE



Shuicheng River drainage basin and the city. Firstly, existing streams, wetlands, and low-lying land are all integrated into a storm-water management and ecological purification system linked by the river, forming a series of water retention ponds and purification wetlands with different capacities. This approach not only minimizes urban flooding but also increases the base flow to sustain river water flow after the rainy season. Secondly, the concrete embankment of the channelized river was removed. A natural riverbank was restored to revitalize the riparian ecology and maximize the river's self-purification capacity. Thirdly, continuous public spaces were created to contain pedestrian and bicycle paths increasing access to the riverfront. These corridors integrate the urban recreation and ecological spaces. Lastly, the project combines waterfront development and river restoration. The ecological infrastructure catalyzes urban renewal efforts in Liupanshui, significantly increases land values, and enhances urban vitality.

As one of the major projects included in the ecological infrastructure of Liupanshui, the Minghu Wetland Park features ecological restoration of the upper stream section of the channelized river. Minghu Wetland Park was created on a site composed of deteriorated wetland patches, abandoned fish ponds and strips of mismanaged corn fields. Its pre-development condition was dominated by garbage dumps and polluted water. As a demonstration of the ecological infrastructure project, this first phase project was designed using all of the tactics for rebuilding ecological health leading to the recovery of biodiversity and native habitat, retention and water quality improvement of

storm-water, and public access to high quality open space, and finally a catalyst for urban development. The specific park elements that achieve these objectives are listed below.

(1) The concrete river embankment was removed to create two ecological zones. One encourages native vegetation to grow within the flood zone and the other establishes conditions for emergent vegetation in the riverbed. Aerating cascades were created along the river to add oxygen that fosters bio-remediation of the nutrient-rich water..

(2) Terraced wetlands and retention ponds were created to reduce peak water flow and regulate the seasonal rainwater. The terraces are inspired by the local farming techniques that catch and retain water and transform steep slopes into productive fields. Their positions, forms and depths were based on geographic information and a water flow analysis. Native vegetation was planted (mostly sown) to establish associations adapted to the various water and soil conditions. These terraced habitats slow the flow of water and speed nutrient removal from the water by microorganism and plant species that use excess nutrients as resources for rapid growth.

(3) Pedestrian paths and bicycle routes are overlaid on the green spaces along the waterways and form a circuit around and between the wetland terraces. Resting platforms with abundant seats, pavilions and a viewing tower are integrated into the designed natural system for universal access. This fosters learning, recreational and aesthetic landscape experiences. An environmental interpretation system was designed to help













## LIUPANSHUI MINGHU WETLAND PARK | TURENSCAPE

visitors understand the natural and cultural meaning of the places. Clearly, the most iconic built artifact is a warm-colored rainbow bridge, in contrast with the frequently cool and damp climate. This causeway connects three sides of the central wetland (lake), creating unforgettable walking and gathering places. These have quickly become favored social and recreational environments of the citizens and attract visitors from near and far.

Through these landscape techniques, the deteriorated water system and peri-urban wasteland has been successfully transformed into a high-performance and low maintenance municipal front yard. It beautifully regulates storm-water, cleans contaminated water, restores native habitats for biodiversity, and attracts residents and tourists. It was officially designated as a National Wetland Park in China in 2013.

LIUPANSHUI MINGHU WETLAND PARK  
LIUPANSHUI CITY, GUIZHOU PROVINCE, CHINA

Design firm | Turenscape  
Design Principal | Kongjian Yu  
Lead Designer | Kongjian Yu  
Landscape Planner | Bin Yan, Meina Shan  
Landscape Architect | Gang Huang, Bo Luan,  
Junyan Zheng, Xin Fan, Shizheng Li, Zhen Bai,  
Jianfei An, Lin Chen, Hongkai You, Yeqi Cao,  
Zhang Deng, Ye Yang, Yue Li  
Architect | Dehua Liu, Xiaofeng Zhang, Jie Bai,  
Jinfeng Zhang, Yizhen Ren, Tuo Liu, Junying  
Cao, Xu Song

Owner/Client | Liupanshui Municipality

Project Size | 90ha







# TRINITY RIVERFRONT

STOSS & SHoP



# TRINITY RIVERFRONT | STOSS & SHoP



HOW TO CONNECT TO THE RIVER?



EXTEND THE LANDSCAPE



EXTEND THE CITY



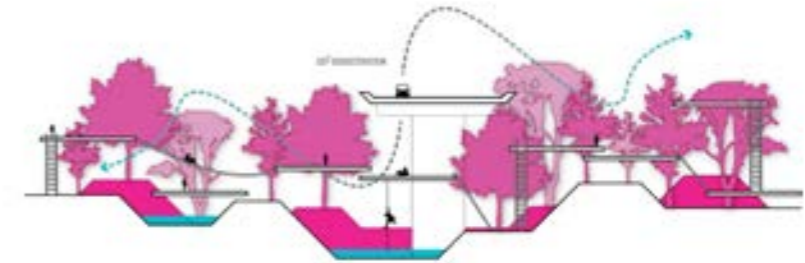
REVIVE THE OLD RIVER

The Trinity Riverfront master plan proposes a new blue and green infrastructure of water and forest, woven into new and existing urban grids and a network of transportation corridors and highway infrastructure. The proposal extends the natural systems of the Trinity River towards Dallas's downtown, providing new open space and new habitats in the city.

The heart of the plan is a revived and revitalized Old River, transformed from a disconnected flood basin into a beautiful chain of parks and water gardens. The Old River Gardens form an active spine that links new forest and neighborhood fingers; they re-work existing storm water detention basins by holding more water in place, creating new urban amenities, improving water quality, and reducing overall volumes that enter the levee at flood stage. Storm-water runoff serves as irrigation to new urban forests that clean the air and water and provide a new habitat for native birds and wildlife. Most importantly, they define a new sustainable form of urbanism for hot-weather climates.

Ecologically diverse and programmatically rich, these playful, active gardens and forests offer new opportunities to experience both the old and new rivers. A signature urban beach nestles into the DeCCo district and overlooks the river; the Pump House Amphitheater provides a new outdoor concert venue and connects the central business district to the waterfront; and music and aviary gardens, with floating walkways and cafes, create a lush new center for the southern neighborhood. All create new urban and ecological life from Dallas's ancestral source.





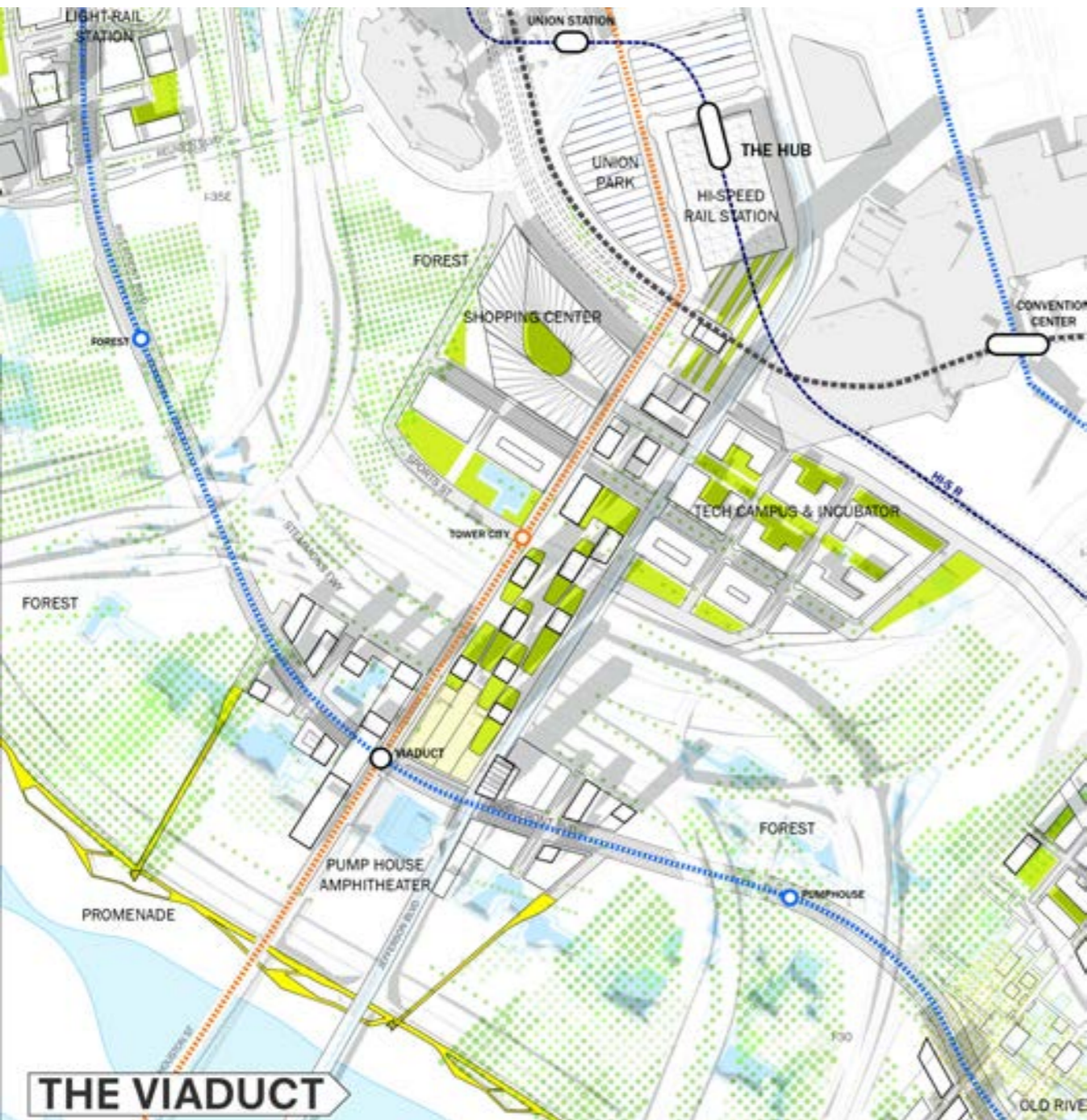


# TRINITY RIVERFRONT | STOSS & SHoP



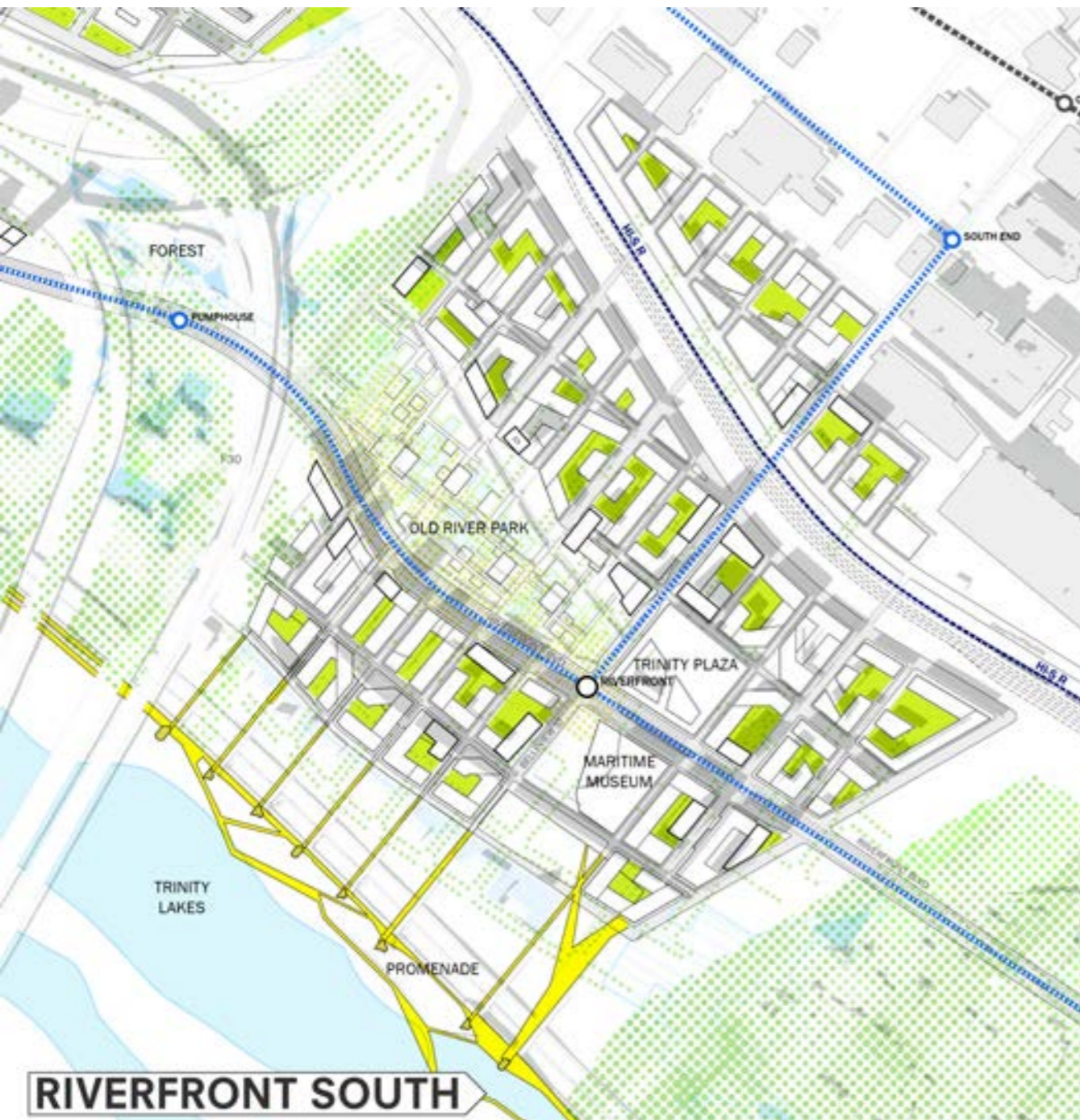


# TRINITY RIVERFRONT | STOSS & SHoP





# TRINITY RIVERFRONT | STOSS & SHoP





# TRINITY RIVERFRONT | STOSS & SHoP



TRINITY RIVERFRONT  
DALLAS, USA

Stoss + SHoP

Stoss Landscape Urbanism  
Chris Reed, principal  
Design Team: Scott Bishop, Jill Desimini, Amy Whitesides

SHoP Architects  
Vishaan Chakrabarti, principal  
Omar Toro-Vaca

Collaborators  
James Lima Planning + Development  
(development + economics)  
NelsonNygaard (transportation)  
Gresham, Smith & Partners (local strategies +  
project implementation)  
LimnoTech (water sciences + environmental  
engineering)

Advisory Team  
Buro Happold (structural, civil, + sustainable  
engineering)  
ETM Associates, LLC (programming, operations,  
+ management)

Client | Connected City Design Studio

Size | 489 acres

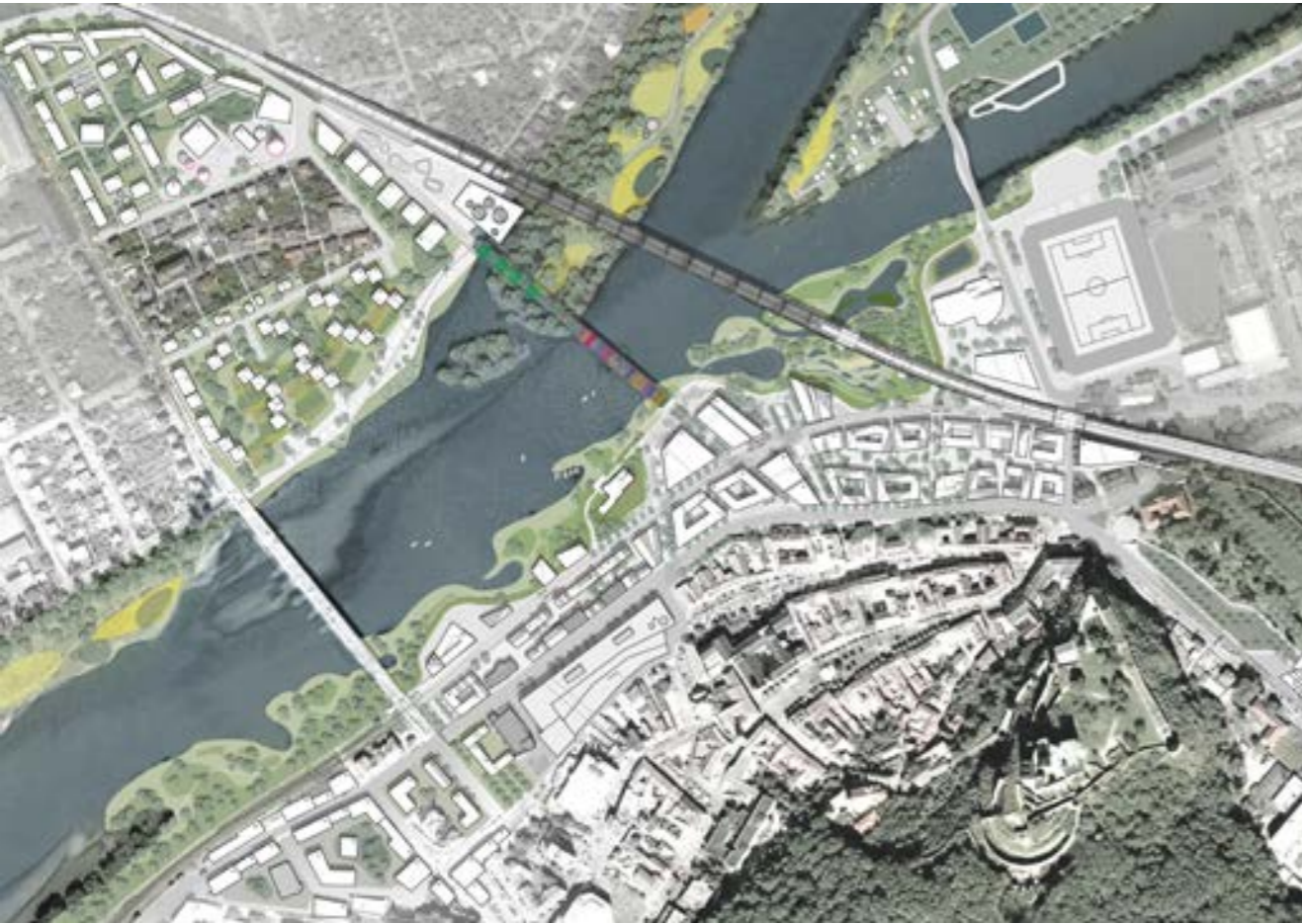


# TRACING TRENCÍN

MANDAWORKS & HOSPER SWEDEN







## TRACING TRENCIN | MANDAWORKS & HOSPER SWEDEN

Mandaworks and Hosper Sweden have been awarded first prize in the open international urban design competition in Trenčín, Slovakia. On May 19th, 2014 the results were announced. Mandaworks and Hosper were selected from 59 entrants to receive first prize. The competition was organized by the City of Trenčín with support from the Swiss-Slovak Cooperation Programme and financed by contributions from the Swiss Confederation and co-financed from the state budget of the Slovak Republic.

The city of Trenčín (57,000 inhabitants) is a compact historic city on the River Váh, forming the administrative centre of Trenčín Region and a natural landmark within the wider area. Strategically, the city is located on the border with the Czech Republic, within an hours' drive from the capital city of Bratislava. The purpose of the competition was to find ways of connecting the city centre with the river and making use of the space that is currently being transformed due to the modernisation and relocation of the City's primary railway track. This is a conceptual design that will become the basis for the master plan of the central urban area .

Trencin is one city of many that is built in the Vah River basin. Since the 1930s the River Vah has become increasingly engineered and controlled to ensure the safety and protection of settlements along its banks. This has resulted in a city that has turned its back to an uninviting river landscape.

Our proposal resurrects the natural character of the River by bending the straight engineered levee walls to create a soft, pliable and programmed

edge, while retaining its protective function.

This new levee landscape connects the south side of the river to the strong tissue of the historic city of Trenčín, by extending its long, narrow block structure to develop a network of shimming and unique plazas, squares, streets and riverfront promenades. The southern waterfront forms a sequence of active recreational public spaces, maximizing the use of the dynamics of the water landscape.

Through the transformed railway bridge a strong and programmed connection is made from the dynamic south embankment to the more extensive landscape of the northern river bed. An ecological centre acts as a central info and meeting point within extensive wetlands and water buffering areas. Within this system a Super Dike is created, which combines water protection with new housing and parking and a vivid urban balcony towards the river and the historic city.

### EXCERPT FROM JURY'S REPORT

"[The proposal] best reflects all aspects of the competition and the award criteria . It's a thoughtful proposal in regards to the existing structure of the historic center, sensitively placing of new buildings, and a quality connection to both sides of the [River] Vah. (...).Tracing Trenčín creates quality links between the city and the river, while respecting the natural conditions of the river."

The proposal "TRACING TRENCÍN", included the following participants: Martin Arfalk, Patrick Verhoeven, Andrei Deacu, Danny Bridson, Maria



# TRACING TRENCIN | MANDAWORKS & HOSPER SWEDEN



**NOW**  
River Vah engineered and controlled.



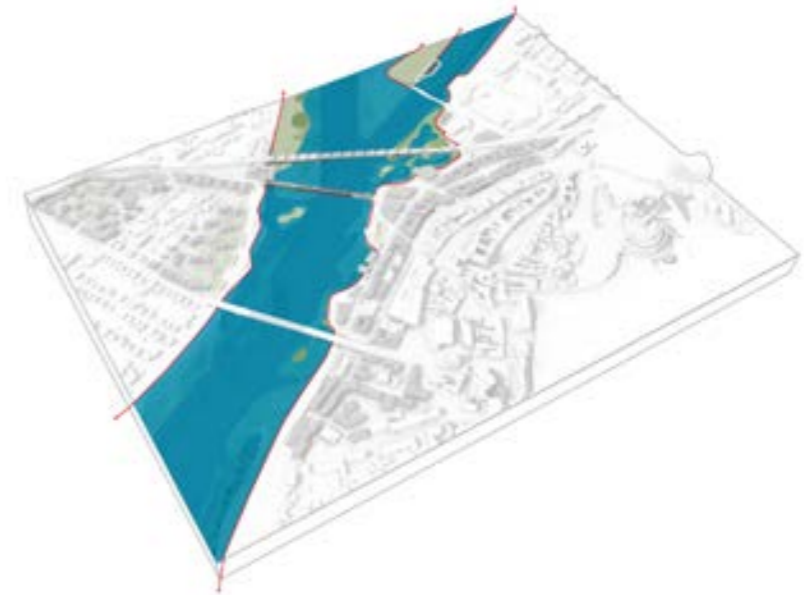
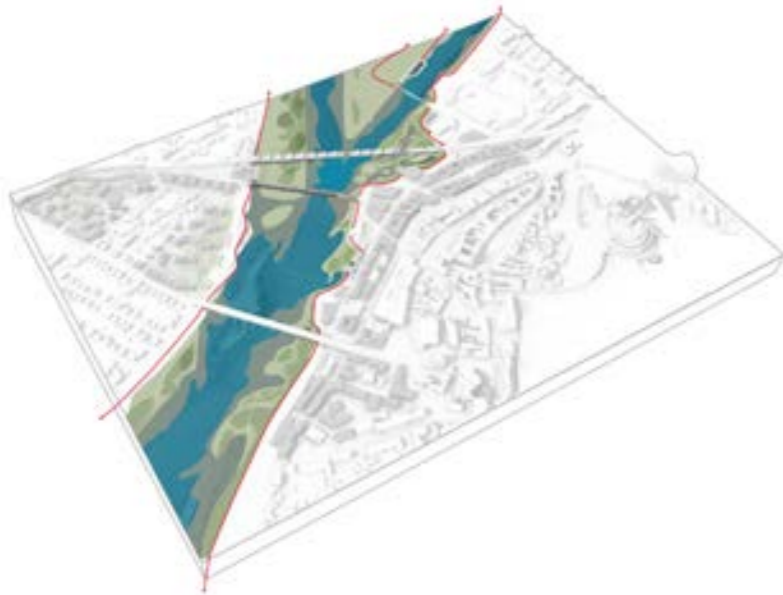
**RIVER SEEKS CITY**  
Revitalizing the natural character of the River Vah



**CITY MEETS RIVER**  
The river connects to the city



**Two riversides**  
Ecological side, bringing landscape inside city (green) and urban city to the river edge (pink)





# TRACING TRENCIN | MANDAWORKS & HOSPER SWEDEN

TRACING TRENCÍN  
TRENCÍN, SLOVAK REPUBLIC

Design Firms |  
Mandaworks Ab Och  
Hosper Sweden Ab

Organiser | City of Trenčín  
Slovak Chamber of Architects

The proposal “TRACING TRENCÍN”, included the following participants: Martin Arfalk, Patrick Verhoeven, Andrei Deacu, Danny Bridson, Maria Gregorio Puig, Carlos Dias, Nicholas Bigelow, and Chuhan Zhang.

Image & Text Credits | Mandaworks & Hosper Sweden







**EAST RIVER ESPLANADE**  
MATHEWS NIELSEN LANDSCAPE ARCHITECTS



### Noise

**S**

- Pilot Projects - Noise Barriers
- Reduce Vehicular Speed
- Resurface Roadway

**M**

- Sound Walls
- Sound Berms
- Green Sound Walls

**L**

- Enclose FDR
- Elevate FDR
- Sound/Flood Walls



### NOISE MITIGATION

- Approaches: Sound Cessation, Volume Control at the Source, Sound Barriers
- Vehicular Factors: Speed, Engine Noise, Road Surface Quality/Materials
- 5-10 dB(A) Attainable noise reduction with a sound barrier
- Barriers Options: Dense Walls (concrete, steel, wood) or Earth Berms
- Earth Berms take up significant space - typical side slopes of 2H:1V.
- Green Barriers - Structured walls with planting. High maintenance. Width Varies 3'-12'
- Must block line-of-sight to be effective - 5 dB noise-level reduction.
- 1.5 dB of noise for each additional 3.2 feet of barrier height.
- Approximately 15'-7" height wall required for 10 dB reduction



Dense Vegetation - 98' Width to Reduce Noise by 5 dB

### Quality of Experience

**S**

- Improve Maintenance
- Seasonal Design Installations
- Comfortable Seating/Tables
- Food Carts/Temp. Concessions

**M**

- Diversify Experiences
- Address Issues in Key Areas
- Restrooms/Kiosks
- Reduce Capital Maintenance Needs

**L**

- Design that Addresses Key Issues from 60th to 125th
- Improve River Ecology
- Long Term Resiliency



### Identity

**S**

- Seasonal Art Installations
- Temp. Landscape Installations
- Educational/Informational Signs

**M**

- Place Making/Naming
- Wayfinding System
- Iconic Art/Sculpture

**L**

- New Design that Comprehensively Addresses Key Issues from 60th to 125th



### Program

**S**

- Music/Movies/Ecological Education
- Barges - Beach, Pool, Entertainment
- Food Carts/Trucks
- More Boating

**M**

- Nodes designed for Program Activities.
- Programs that Develop Stewardship

**L**

- Diversity of Active/Passive Programming that Encourages Residents to Utilize the Entire Esplanade



### Space

**S**

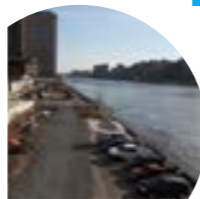
- Reclaim Unused Spaces
- Floating Barges
- Improve Path Width
- Pier 107

**M**

- Cantilevered Pathways
- Shoreline Adjustments North of 96th Street
- Andrew Haswell Green Park

**L**

- Deck Over/Elevate FDR
- Seamless Connections to Upland Park Land/Green Spaces
- Boardwalks



Building upon a design competition that was held in 2012, Civitas, a nonprofit organization dedicated to improving and preserving neighborhood quality of life in its catchment area, the Upper East Side and East Harlem, has retained Mathews Nielsen to help navigate its community-based planning initiative and carry forward the momentum for reconstructing a reimagined version of the East River Esplanade on Manhattan in New York City.

CIVITAS began its Reimagining the Waterfront initiative in 2011 with design workshops/visioning sessions, lectures and community service projects focused on ideas for an improved East River Esplanade from 60th-125th Street. The international ideas competition and museum exhibition at the Museum of the City of New York constituted another facet of reaching out to the community in an attempt to facilitate action and change. There is a strong sentiment that the East River waterfront could serve as a major recreational and environmental amenity for East Harlem, the Upper East Side and, indeed, all of New York City. Currently, this approximately 3.5 mile length of riverfront parkland is in dire need of structural remediation due to failing wood piles, deteriorating concrete and an aging seawall. Mathews Nielsen has been charged with performing an analysis and gathering the necessary information along the strip running from 60th Street to 125th Street to identify short and long term opportunities for design. The hope is that consensus can be built around these opportunities and momentum will be generated to ultimately identify funding sources for this community-based venture.

### Analysis and Research

To understand existing conditions, MATHEWS NIELSEN researched the following:

- Bathymetry
- River currents
- Esplanade condition
- Noise levels
- Spatial limitations and opportunities
- Regulatory conditions
- Adjacent land uses
- Flood plain data
- Upland connections
- Sustainability
- Resiliency planning
- Water quality

### Contextual Adjacencies

MATHEWS NIELSEN has examined land adjacent to the esplanade and identified planned projects currently underway. These represent participation by a number of public and private entities and constitute potential design opportunities.

### Community and Stakeholder Meetings

In order to understand the potential of the East River Esplanade, a comparison of this unique land resource with successfully realized linear park precedents has led to a more thorough understanding of the potential for a redeveloped Esplanade. To maximize this latent potential, elected officials, public agencies, and established community groups were educated about both the feasibility and challenges faced when solving this design problem. MATHEWS NIELSEN engaged stakeholders and the community to address their needs and wishes in order to identify long and short term design opportunities.



EAST RIVER ESPLANADE  
MATHEWS NIELSEN LANDSCAPE ARCHITECTS

ONE



Temporary Beach



TWO



Temporary Gardens





THREE



FOUR



# EAST RIVER ESPLANADE MATHEWS NIELSEN LANDSCAPE ARCHITECTS

Based on research & analysis and community/  
stakeholder meetings, Mathews Nielsen is:

- Identifying opportunities and constraints along esplanade
- Reviewing connectivity opportunities – both to the upland and linearly along other sections of esplanade
- Identifying nodes and potential opportunities for recreation
- Identifying policies/practices that can help guide future planning
- Developing short/medium/long term opportunities
- Identifying priority projects
- Exploring potential funding/policy mechanisms for physical improvements and long term maintenance.



The process is currently ongoing and will culminate with recommendations and a report prepared for Civitas this fall (2014).

Simplify



Pilot Projects



EAST RIVER ESPLANADE  
NEW YORK, USA

Design Firm | Mathews Nielsen Landscape Architects

Text & Image Credit | Mathews Nielsen Landscape Architects

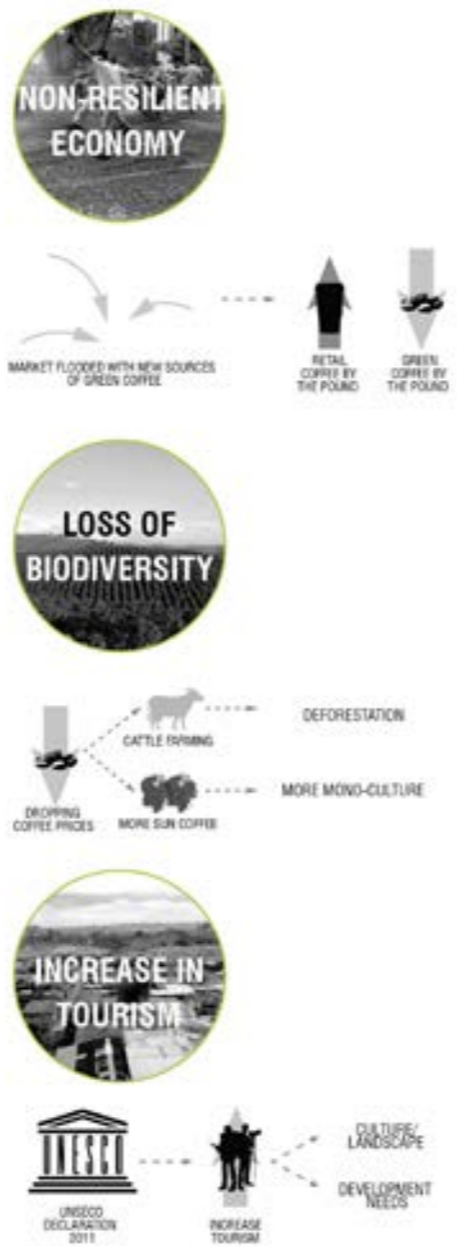
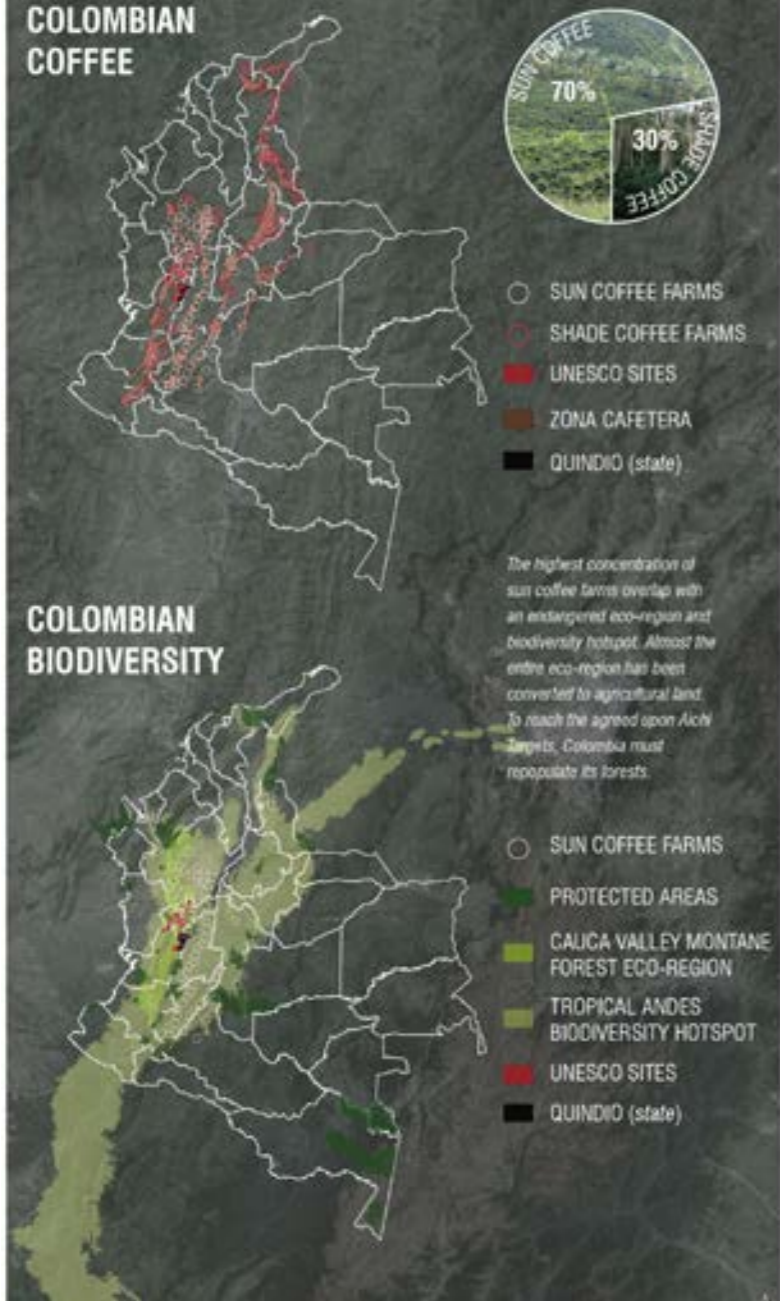


# SEEDING SHADE

TAYLOR BURGESS, EMILY VAN GELDERN,  
& STEFANIE LOOMIS







# SEEDING SHADE

TAYLOR BURGESS, EMILY VAN GELDERN, & STEFANIE LOOMIS

In Colombia, coffee is more than an export commodity. It is an intimate relationship between the farmer, local community and the landscape in which it grows – leading to a unique product and culture. Colombian coffee trees share the high-elevated slopes of the Andes Mountain Range with the Tropical Andean Biodiversity Hotspot in an area named the Zona Cafetera. This significant overlap of biodiversity, productivity, and culture led to the 2011 UNESCO World Heritage designation of this Zona. Unlike other UNESCO designations of static monuments and built fabric, this designation attempts to preserve the dynamic way people live and work with the land; a “cultural landscape.” Our studio endeavored to provide the municipality of Circasia and the Zona Cafetera, with a design framework that utilizes the momentum of the UNESCO declaration to address the global and local issues of population growth, falling coffee prices, deforestation, tourism, and climate change currently threatening the coffee cultural landscape.

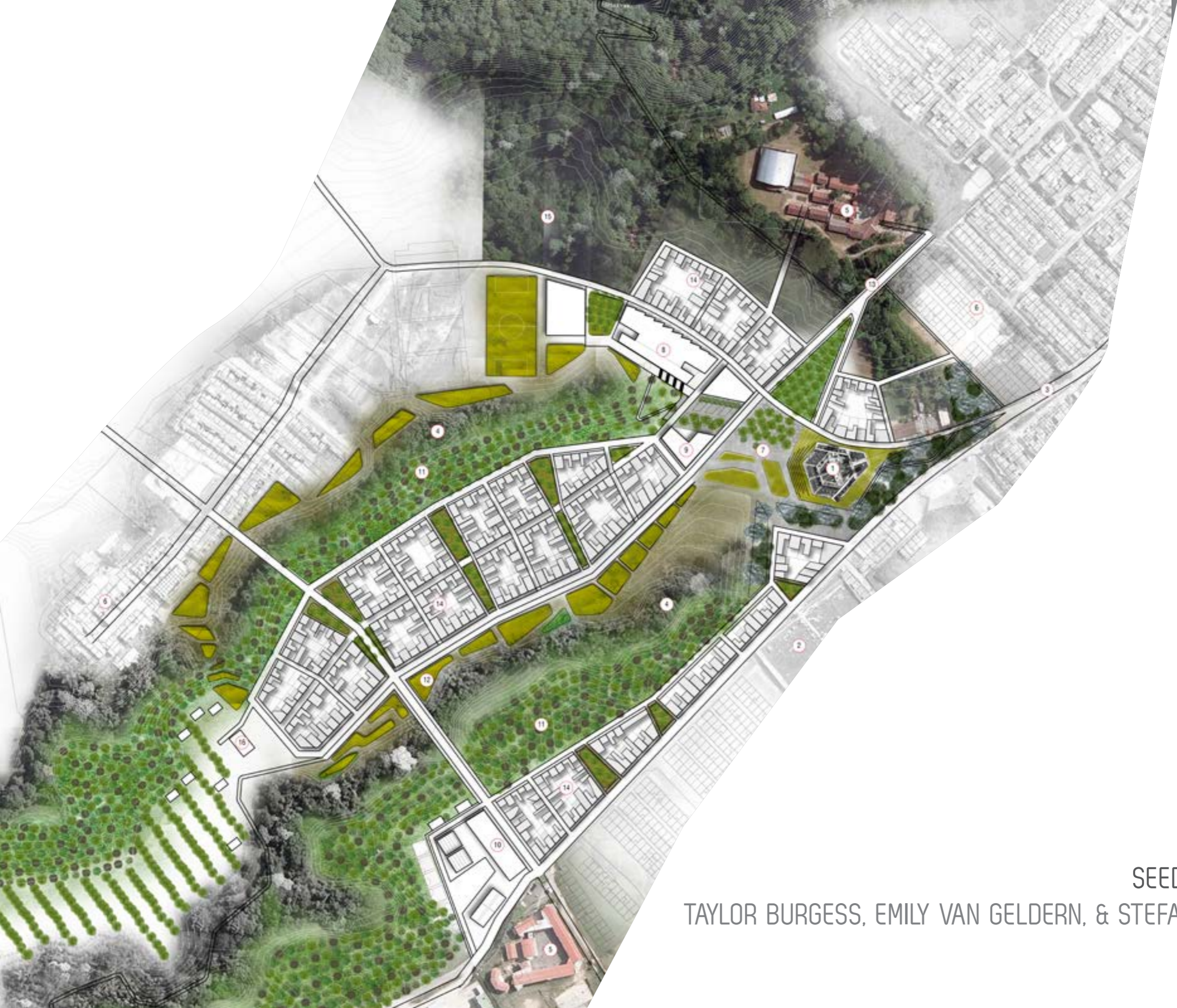
Our project “Seeding Shade” addresses the global issue of deforestation because many local issues stem from the ongoing removal of the municipality’s canopy trees. As sun-coffee farms, which produce a lower quality bean, continue to become less profitable, many farmers switch to more lucrative cattle farming or expand their sun-coffee fields, further reducing forested areas. This cycle has drastically affected the municipality’s habitat and water resources leading to more chemical pollution and a less desirable agricultural product. As a response, “Seeding Shade” implements a series of successional Shade typologies that aim to protect and connect existing forests

through innovative economic means, ecological sustainability and a renewed cultural identity. The different typologies serve various functions from productive agriculture, to protective buffers, or programmed parks. In order to incentivize the implementation of these Shade typologies, the current agrarian system is supplemented with layers of canopy and sub-canopy trees (Shade) producing additional goods like food and timber. The Shade typologies also expand and protect existing forest patches through both natural seeding and designed seeding. Together these strategies of replanting and reseeded aggregate to form connected Shade corridors extending from or reaching towards existing large forest patches within the Zona Cafetera.

Shade typologies are implemented across the municipality based on current waterway routes, land use patterns, remaining forests, road networks, and school locations that determine a series of connected Rural Nodes. These Rural Nodes are the first points of transition from the current degrading land uses to sustainable Shade systems. In Circasia, many small farmers do not possess the modern infrastructure to efficiently process their products. Nor do they have a high enough quality or quantity product to export on their own. The Rural Nodes would provide farmers the opportunity to process their high-quality shade coffee and cattle byproducts with modern machinery and co-op these products into a unique Circasia brand. The Rural Nodes’ proximity to schools and their infrastructure for social programming (farmers markets, eco-tourism, educational events) engage the rural community and tourists alike in the agricultural processes and cultural heritage.







SEEDING SHADE  
TAYLOR BURGESS, EMILY VAN GELDERN, & STEFANIE LOOMIS

LARGE | WLA 15





## SEEDING SHADE TAYLOR BURGESS, EMILY VAN GELDERN, & STEFANIE LOOMIS

Rural Nodes are connected through a series of new trails and existing roads that navigate both locals and tourists to the Urban Nursery at the Circasia city center. The Urban Nursery not only provides Circasia with a place to grow and sell Shade seedlings, but also introduces a new form of development that respects existing waterways; reversing the current growth pattern of ignoring Circasia's prominent topography and creeks. A series of nursery terraces comprise the southern slope populated by canopy trees that Shade the adjacent creek and support habitat. The northern slopes of the ravine provide a series of recreation and bio-retention terraces for future development. Where these two ravines converge, a new civic center and plaza provide a cultural hub for the location of an agro-university and public library. These facilities encourage the education and further development of Circasia and allow for the urban community to participate in the re-shading of the rural region.

In conjunction with the UNESCO World Heritage designation, "Seeding Shade" also incorporates the Aichi Targets of the United Nations. Specifically Aichi Target 11, which directs signatory countries (Colombia included) to conserve 17 percent of their terrestrial areas and "integrate [them] into the wider landscapes," by the year 2020. Currently, only 3 percent of Circasia is protected so reseedling is vital to conserve the biodiversity of the area. Both the Aichi Targets and UNESCO designation can mean added income for local farmers through international funds and the introduction of eco-tourism. "Seeding Shade" provides the developmental framework for farmers to capitalize on their cultural landscape in a socially, genuinely, and environmentally

responsible way.

SEEDING SHADE  
CIRCASIA, COLOMBIA

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Full Project Title | Seeding Shade: Local Landscapes affecting Global Issues

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